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Datasheet for the decision of 4 December 2020

Case Number: T 1865/17 - 3.5.07

Application Number: 11001927.0

Publication Number: 2367118

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Language of the proceedings: EN

Title of invention:
Method and devices for generating two-dimensional visual objects

Applicant:
GMC Software AG

Headword:
Generating two-dimensional visual objects/GMC SOFTWARE

Relevant legal provisions:
EPC Art. 56
RPBA 2020 Art. 13(2)

Keyword:
Inventive step - main request, revised main request, first to third auxiliary requests (no)
Late-filed request - revised third auxiliary request - admitted (no)

Decisions cited:

T 0641/00, T 1143/06, T 1235/07, T 1741/08, T 1834/10, T 1802/13, T 2276/13, T 0336/14, T 0452/14, T 1091/17, T 0543/18

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Case Number: T 1865/17 - 3.5.07

D E C I S I O N
of Technical Board of Appeal 3.5.07
of 4 December 2020

Appellant: (Applicant)	GMC Software AG Hirschengasse 12 9050 Appenzell (CH)
Representative:	Rentsch Partner AG Bellerivestrasse 203 Postfach 8034 Zürich (CH)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 18 April 2017 refusing European patent application No. 11001927.0 pursuant to Article 97(2) EPC**

Composition of the Board:

Chair	P. San-Bento Furtado
Members:	M. Jaedicke
	C. Almberg

Summary of Facts and Submissions

I. The applicant (appellant) appealed against the decision of the examining division refusing European patent application No. 11001927.0 (published as EP 2 367 118). The application claims a priority date of 15 March 2010.

II. The documents cited in the contested decision include:

D1: US 2007/0024626 A1, published on 1 February 2007

D2: US 6 073 148 A, published on 6 June 2000

D3: Anonymous, "Typeface - Wikipedia, the free encyclopedia", 13 March 2010, retrieved from: https://web.archive.org/web/20100313014328/http://en.wikipedia.org/wiki/Typeface#Proportion

D5: Jonathan Ross, "Word 2007, Customizing and Creating Styles", 2 September 2009, pp. 1-4, retrieved from: https://www.youtube.com/watch?v=9nkfXrkGuYI

III. The examining division decided that the subject-matter of the independent claims of the main request lacked inventive step over the prior art disclosed in document D1 in combination with document D2 and common general knowledge. Furthermore, it decided that the first and second auxiliary claim requests then on file did not comply with Articles 84 and 123(2) EPC.

In an *obiter dictum* the examining division provided further comments, stating that the main request did not comply with Article 84 EPC and that the first and second auxiliary requests then on file lacked inventive step.

IV. In its statement of grounds of appeal, the appellant requested that the decision be set aside and that a patent be granted on the basis of the main request considered in the contested decision, or one of the first to third auxiliary requests submitted with the statement of grounds of appeal. The appellant submitted further requests in points 32, 37, 45 and 70 of its statement of grounds of appeal.

V. In a communication under Article 15(1) RPBA 2020 accompanying the summons to oral proceedings, the board expressed, among other things, its provisional opinion that the subject-matter of claim 1 according to the main request and each of the first to third auxiliary requests lacked inventive step. Additionally, the board expressed doubts about the admissibility of the requests mentioned in points 32, 37, 45 and 70 of the statement of grounds of appeal.

VI. By letter of 2 November 2020, the appellant submitted a revised main request and arguments. Moreover, it maintained its prior main request and its first to third auxiliary requests.

VII. Oral proceedings were held by videoconference as scheduled and the appellant was heard on relevant issues. In the course of these oral proceedings, the appellant confirmed that any and all requests mentioned in points 32, 37, 45 and 70 of the statement of grounds of appeal were no longer maintained. It also filed a revised third auxiliary request. At the end of the oral proceedings, the Chair announced the board's decision.

VIII. The appellant's final requests were that the decision under appeal be set aside and a patent be granted based on, in ranking order, the main request (filed on

5 March 2012), the revised main request (filed on 2 November 2020), the third auxiliary request (filed with the statement of grounds of appeal), the first auxiliary request (filed with the statement of grounds of appeal), the revised third auxiliary request (filed in the oral proceedings before the board), or the second auxiliary request (filed with the statement of grounds of appeal).

IX. Claim 1 of the main request reads as follows:

"A method of generating one or more two-dimensional visual objects in a communication terminal (1), the method comprising:

receiving (S1) in the communication terminal (1) a data entry defining one or more characters;

determining (S2) in the communication terminal (1), from a set of character representation types supported in the communication terminal (1), a first visual representation of the characters with a one-to-one correspondence to the data entry;

showing (S3) in a display area (11) of the communication terminal (1) the first visual representation of the characters;

transmitting (S5) from the communication terminal (1) a data representation of the characters via a telecommunications network (2) to a processing center (3);

receiving (S7) in the communication terminal (1) from the processing center (3) via the telecommunications network (2) a different, second visual representation of the characters from a set of character representation types supported in the processing center (3) and based on the data representation of the characters, and character metrics data associated with the second visual representation of the characters;

overwriting (S9) in the display area (11) the first visual representation of the characters with the second visual representation of the characters, and after the overwriting,
positioning a cursor, based on character metrics data associated with the second visual representation of the characters, to a position that enables continuation of data entry by the user."

X. Claim 1 according to the revised main request differs from claim 1 of the main request in that the text "behind a character sequence of the second visual representation," was added before the text "to a position that enables continuation of data entry by the user."

XI. Claim 1 of the third auxiliary request reads as follows:
"A method of generating one or more two-dimensional visual objects in a communication terminal (1), the method comprising:
receiving (S1) in the communication terminal (1) a data entry defining one or more characters;
determining (S2) in the communication terminal (1), from a set of character representation types supported in the communication terminal (1), a first visual representation of the characters with a one-to-one correspondence to the data entry;
transmitting (S5) from the communication terminal (1) a data representation of the characters via a telecommunications network (2) to a processing center (3);
receiving (SP3) in the communication terminal (1) from the processing center (3) via the telecommunications network (2) character metrics data for a second visual representation of the characters; and showing (S3) in a

display area (11) of the communication terminal (1) the first visual representation of the characters while applying the received character metrics data for the second visual representation of the characters;
receiving (S7) in the communication terminal (1) from the processing center (3) via the telecommunications network (2) the second visual representation of the characters from a set of character representation types supported in the processing center (3) and based on the data representation of the characters; and
overwriting (S9) in the display area (11) the first visual representation of the characters with the second visual representation of the characters."

XII. Claim 1 of the first auxiliary request reads as follows:
"A method of generating one or more two-dimensional visual objects in a communication terminal (1), the method comprising:
receiving (S1) in the communication terminal (1) a data entry defining one or more graphical objects;
determining (S2) in the communication terminal (1), based on an algorithm locally supported in the communication terminal (1), a first visual representation of the graphical objects with a one-to-one correspondence to the data entry;
showing (S3) in a display area (11) of the communication terminal (1) the first visual representation of the graphical objects;
transmitting (S5) from the communication terminal (1) a data representation of the graphical objects via a telecommunications network (2) to a processing center (3);
receiving (S7) in the communication terminal (1) from the processing center (3) via the telecommunications network (2) a different, second visual representation

of the graphical objects based on an algorithm supported in the processing center (3) and based on the data representation of the graphical objects; and overwriting (S9) in the display area (11) the first visual representation of the graphical objects with the second visual representation of the graphical objects."

XIII. Claim 1 of the revised third auxiliary request reads as follows:

"A method of generating one or more two-dimensional visual objects in a communication terminal (1), the method comprising:
receiving (S1) in the communication terminal (1) a data entry defining one or more characters;
determining (S2) in the communication terminal (1), from a set of character representation types supported in the communication terminal (1), a first visual representation of the characters defined by the data entry with a one-to-one correspondence to the data entry;
transmitting (S5) from the communication terminal (1) a data representation of the characters defined by the data entry via a telecommunications network (2) to a processing center (3);
generating, by the processing center (3), based on the data representation of the characters from the communication terminal (1), a different, second visual representation of the characters from a set of character representation types supported in the processing center (3), the second visual representation being generated as an image in a target font;
receiving (SP3) in the communication terminal (1) from the processing center (3) via the telecommunications network (2) character metrics data for the second

visual representation of the characters defined by the data entry;
showing (S3) in a display area (11) of the communication terminal (1) the first visual representation of the characters defined by the data entry while applying the received character metrics data for the second visual representation of the characters defined by the data entry;
receiving (S7) in the communication terminal (1) from the processing center (3) via the telecommunications network (2) the second visual representation of the characters defined by the data entry; and
overwriting (S9) in the display area (11) the first visual representation of the characters defined by the data entry with the second visual representation of the characters defined by the data entry."

XIV. Claim 1 of the second auxiliary request differs from claim 1 of the main request in that it omits the text ", and character metrics data associated with the second visual representation of the characters" after the text "and based on the data representation of the characters", and replaces the text ", and, after the overwriting, positioning a cursor [...] to a position that enables continuation of data entry by the user." with the following:
"; and
receiving (S1) in the communication terminal (1) a data entry corresponding to one or more graphical objects;
showing (S3) in the display area (11) of the communication terminal (1) a first visual representation of the graphical objects, the first visual representation being based on an algorithm supported in the communication terminal (1);
transmitting (S5) from the communication terminal (1) a data representation of the graphical objects via the

telecommunications network (2) to the processing center (3); receiving (S7) in the communication terminal (1) from the processing center (3) via the telecommunications network (2) an image of a different, second visual representation of the graphical objects based on the data representation of the graphical objects and based on an algorithm supported in the processing center (3); and overwriting (S9) in the display area (11) the first visual representation of the graphical objects with the image of the second visual representation of the graphical objects."

XV. The appellant's arguments, where relevant to the decision, are discussed in detail below.

Reasons for the Decision

1. *Admissibility of the appeal*

The appeal complies with the provisions referred to in Rule 101 EPC and is therefore admissible.

The invention

2. The application relates to a method and devices for generating two-dimensional visual objects, for example graphical objects or characters (description as originally filed, page 1, lines 5 to 8).

According to the background art described in the application, it has been common practice to ensure that a company's visual appearance is consistent and uniform. For that purpose, many companies have designed their own fonts which are typically protected under intellectual property laws and may only be used by a third party with explicit permission or licence from

the proprietor. However, it is not practical to provide communication terminals or browsers with permissions, or licences to use the company's proprietary fonts or other visual objects. Nor is it desirable to store all these fonts on mobile communication terminals (description, page 1, lines 10 to 23).

3. According to the invention, a data entry defining visual objects is received in a communication terminal (description, page 2, line 13, to page 3, line 20). For example, the data entry corresponds to one or more graphical objects or one or more characters. In the communication terminal, a first visual representation of the visual objects is determined based on the data entry, for example based on an algorithm or a selection from a set of character representation types, such as bitmap fonts or outline fonts (i.e. vector fonts), supported in the communication terminal. The first visual representation is shown on a display.

A data representation of the visual objects is transmitted from the terminal to a processing center. There, a second visual representation of the visual objects is determined, based on the data representation. The second visual representation differs from the first visual representation of the visual objects and can be, for example, based on an algorithm supported in the processing center, or selected from a set of character representation types supported in the processing center. The second visual representation is transmitted from the processing center to the terminal. In the terminal's display area, the first visual representation of the graphical objects or characters is replaced with the second visual representation of the graphical objects or characters, respectively. For example, the first and/or

second visual representations of the characters are bitmap fonts or outline fonts (page 3, lines 2 to 20).

As shown in Figures 6 to 8 of the application, when a user types a character sequence, the typed character sequence is represented using a locally available font (first visual representation) on the terminal's display. After a certain duration of time (latency; see description, page 5, line 20, to page 6, line 5; page 14, lines 18 to 26), the display is refreshed using a second, enhanced visual representation (e.g. based on the server font) and the cursor is positioned to allow the user to continue typing (page 19, line 20, to page 20, line 2).

Main request

4. *Inventive step*

4.1 The examining division chose document D1 as the starting point for assessing inventive step, and the appellant did not contest this choice.

Document D1 describes the handling of large character sets in devices with memories too small to store the complete character set. When a character not stored in the device is required, a placeholder character is displayed instead, and the missing character is requested from a server where the complete character set is stored. Upon receipt of the missing character from the server, the displayed placeholder character is replaced with the correct character (D1, paragraphs [0014] to [0034]).

4.2 According to the contested decision, document D1 discloses most features of the subject-matter of

claim 1 in paragraphs [0015], [0016], [0018], [0019], [0024] to [0026] and [0043], but does not disclose the following features:

F1 the first visual representation has a one-to-one correspondence to the data entry;

F2 positioning a cursor, based on the character metrics data associated with the second visual representation of the characters, to a position that enables continuation of data entry by the user.

4.2.1 According to the contested decision, the distinguishing features F1 and F2 were independent of each other and solved different problems. Thus, inventive step was assessed independently for each of these features. Feature F1 was obvious, as the skilled person would find the solution in document D2. Feature F2 was obvious for the skilled person based on the common practice in the field.

4.3 In its statement of grounds of appeal, the appellant did not contest that features F1 and F2 were the only distinguishing features of the claimed subject-matter over document D1. However, in its reply to the board's communication, it argued that there were two additional distinguishing features, as follows:

F1' receiving (S7) in the communication terminal (1) from the processing center (3) via the telecommunications network (2) a different, second visual representation of the characters from a set of character representation types supported in the processing center (3) and based on the data representation of the characters;

F2' [receiving (S7) in the communication terminal (1) from the processing center (3) via the telecommunications network (2)] character metrics

data associated with the second visual representation of the characters.

As to feature F1', the appellant argued that D1 explicitly disclosed that the missing "font information" or "display information for displaying the missing character" was received or "fetched" from the server. This information was not a visual representation of a character, as D1 disclosed client-side rendering, i.e. the font renderer on the client generated the (second) visual representation.

As to feature F2', the appellant argued that due to the client-side rendering which was disclosed in document D1, the character metrics data associated with the second visual representation could not be received by the communication terminal. Rather, such metrics data would be generated by the communication terminal upon rendering.

4.4 The board accepts that F1 and F2 are distinguishing features over document D1. However, the board does not agree with the appellant that features F1' and F2' distinguish the claimed subject-matter over document D1.

4.4.1 As to feature F1', the board considers that the expression "second visual representation" is broad and includes font information. The appellant argued that the application distinguished between fonts and visual information, referring, among other things, to page 18, lines 13 to 16, and to page 17. However, as explained in the oral proceedings, the board is not convinced by the appellant's arguments, since the application refers to a server font as an example of an "enhanced (second) visual representation" (see for example description,

page 11, lines 6 to 11, or page 16, lines 2 and 3), which corresponds to the (second) visual representation of step S7 of claim 1 (see also the description, page 18, lines 13 to 24).

Hence, the board considers that feature F1' is disclosed in document D1, for example a font downloader for downloading missing characters in paragraph [0024]. Consequently, the appellant's arguments that distinguishing feature F1' would have the effect of resource conservation on the client side are not relevant for assessing inventive step.

4.4.2 As to the alleged distinguishing feature F2', the board shares the view of the examining division that it is implicitly disclosed in document D1 that the character metrics are part of the downloaded information, as the character metrics are necessary for client-side rendering. Hence, the board is not convinced by the appellant's arguments regarding feature F2'.

4.5 The appellant argued that features F1 and F2 synergistically yielded the technical effect of ensuring immediate readability during continuous, uninterrupted data entry and thus supported a continuous human-machine interaction within the meaning of T 336/14 of 2 September 2015. Features F1 and F2 ensured that the readability was immediate and uninterrupted, respectively.

Moreover, resource conservation on the client side and avoidance of potential licensing issues were constraints to the overall objective of continuous data entry. Consequently, the objective technical problem was, in the appellant's view, to adapt the method of D1 so as to enable a continuous data entry, while

conserving client-side resources and at the same time avoiding potential licensing issues posed by the distribution of character representation types (fonts).

According to the appellant, there was no disclosure or suggestion of the distinguishing features in the prior art. Feature F1 was not obvious, since document D1, paragraphs [0024] and [0025], did not provide any motivation for the skilled person to look for a better way to arrive at an immediate readability. Even if the skilled person would have been motivated to look for improvements, they would not have consulted document D2, which related not to data entry but to the remote technical field of displaying electronic documents optimised for fast retrieval over a network. The solution proposed by document D2, creating or adopting a font, resulted in a time delay and was not appropriate in the context of data entry to which the invention is directed. Moreover, even if the skilled person combined document D2 with document D1, they would still not arrive at the claimed solution. In particular, document D2 disclosed downloading the fonts from the server and thus did not address the licensing issue that this invention solved.

4.6 The board does not recognise the alleged synergistic effect of distinguishing features F1 and F2. Rather, the board agrees with the examining division that, when compared to the unreadable placeholders used in the method of document D1, feature F1 has the effect of an immediate readability. The board also agrees with the examining division that the positioning of the cursor according to feature F2 has the effect of enabling continued data entry after overwriting the first visual representation with the second. The effect of feature F2 is independent of the effect of feature F1,

as the need to position the cursor after overwriting the first visual representation with the second is not dependent on displaying, as first visual representation, characters (in a substitute font) or placeholders.

4.6.1 The board agrees with the examining division that feature F1 is obvious. Document D1 discloses that the use of placeholders for unavailable characters is unsatisfactory (D1, paragraph [0025]). Hence, the skilled person would prefer to use characters of a locally available font over unreadable placeholders, even if this font is not the desired font, for example when a font is not available at the terminal due to licensing issues.

In this context, the board observes that according to the description, page 4, lines 3 to 5, the reasons for not supporting a font in the terminal may be licensing issues, i.e. non-technical commercial reasons. The aim to overcome such licensing issues may thus be added as a constraint to the objective technical problem (see decision T 641/00, Two identities/COMVIK, OJ EPO 2003, 352), and the appellant agreed. In view of this non-technical motivation to avoid licensing issues, the skilled person would have replaced the placeholders as disclosed in document D1 with characters in a substitute font available locally when a character could not be rendered in a desired font by the communication terminal. Hence, the board is not convinced by the appellant's argument that the skilled person starting from document D1 had no motivation to search for a solution different from using unreadable placeholders.

In view of the above, the board considers that

feature F1 was, at the relevant date, a routine development to improve readability that did not involve exercising inventive skill.

For the sake of completeness, the board notes that document D2 teaches, in column 27, line 58, to column 29, line 62, using substitute fonts that emulate the desired font very closely, if the desired font is not immediately available for rendering. The board agrees with the examining division that the skilled person would have consulted D2 and would have been led to the use of a locally available substitute font if a desired font was not available at the terminal, for example due to licensing issues.

The appellant's argument that document D2 is in a remote technical field is not convincing, since document D2 concerns displaying electronic documents when fonts are unavailable and thus addresses a problem that is similar to the problem addressed by the use of placeholders for unavailable characters disclosed in document D1. Moreover, the board is not convinced by the appellant's argument that the skilled person would not have arrived at feature F1 in an obvious manner, even when combining document D2 with document D1, as the appellant did not consider that avoiding licensing issues for fonts is part of the problem when searching for a solution.

4.6.2 Regarding feature F2, the board also agrees with the examining division that the skilled person carrying out the method of document D1 was directly confronted with the problem of how to move the cursor to an appropriate display position after replacing the placeholder characters, since users would find it inconvenient to manually position the cursor after the placeholder

characters were replaced with the characters in the desired font. Since any cursor positioning in a displayed text needs to be based on character metrics, the skilled person would obviously have used the character metrics, which were received from the server when downloading font information, for determining the correct position.

Furthermore, a correct positioning of the cursor was standard practice and notoriously known at the priority date. In particular, in the context of continuous text data entry, a correct positioning of a cursor implied (and still does) that the cursor is positioned behind the visual representation of the character sequence already entered in a way supporting continued entry of a sequence of characters forming text. Consequently, the skilled person would have implemented a correct positioning of a cursor without exercising inventive skill.

4.7 As the board's reasoning in the present case does not rely on considering a particular distinguishing feature as being non-technical, the appellant's arguments in favour of a technical contribution are not relevant.

4.8 In view of the above, the subject-matter of claim 1 of the main request lacks inventive step (Article 56 EPC).

Revised main request

5. *Admissibility*

Claim 1 of the revised main request differs from claim 1 of the main request only in that it specifies more clearly the positioning of the cursor ("behind a character sequence of the second visual

representation") in view of the clarity objection made *obiter* by the examining division. In its statement of grounds of appeal, the appellant had already indicated its willingness to clarify how the cursor was positioned, and the board in its communication had already considered such a clarification when preliminarily assessing inventive step. As a clarification was already anticipated by the board in its communication, and as the amendment does not give rise to fresh issues, the board admits the revised main request into the proceedings under Article 13(2) RPBA 2020.

6. *Inventive step*

In the context of continuous text data entry by a user, it would have been obvious to position the cursor behind the previously entered text displayed in the desired font so that further entered characters appeared at the end of the previously entered characters. The selected cursor position corresponds merely to a position corresponding to inputting text by appending newly entered text at the end of the previously entered text, which is notoriously known. Hence, considering also the above inventive-step objection against the subject-matter of claim 1 of the main request, the subject-matter of claim 1 of the revised main request too lacks inventive step (Article 56 EPC).

Third auxiliary request

7. Claim 1 of the third auxiliary request differs from claim 1 of the main request as follows:

- It omits the steps of showing the first visual representation and positioning the cursor for enabling continued data entry by the user.
- It adds the steps of

"receiving (SP3) in the communication terminal (1) from the processing center (3) via the telecommunications network (2) character metrics data for a second visual representation of the characters; and

showing (S3) in a display area (11) of the communication terminal (1) the first visual representation of the characters while applying the received character metrics data for the second visual representation of the characters;".

8. *Inventive step*

8.1 The appellant argued that, according to the third auxiliary request, displaying the first visual representation took into account the character metrics of the second visual representation. According to the description, page 4, line 24, to page 5, line 3, the features of the claims had the effect that there was no sudden change in inter-character spacing, since the first visual representation was already presented with the inter-character spacing of the second visual representation. The claimed subject-matter further improved the readability of text during data entry. Avoiding a sudden change in inter-character spacing allowed continuous human-machine interaction, as users would not use a system where the characters were moving.

According to decision T 452/14 of 13 February 2020, increasing user-friendliness was a technical effect. In the appellant's view, document D2 appeared in a

different technical context, as column 29, line 42 taught downloading fonts with a background process. According to the present invention, the server did all the computations for the data entry. This was a consequence of the unavailability of the font on the terminal due to licensing issues and led to resource conservation on the client side.

8.2 The board agrees with the appellant that the method of the third auxiliary request may further improve the readability. However, this is not achieved in the context of continued data entry, because claim 1 omits the steps of showing the first visual representation and positioning the cursor for enabling continued data entry by the user, and no other feature of the claim refers to continued data entry. Improved readability or, in other words, lowering the cognitive burden for a user, is not of itself, at least according to the established case law, recognised as a technical effect (see for example T 1741/08 of 2 August 2012, Reasons 2.1; T 1834/10 of 25 February 2015, Reasons 5). As to the cited decision T 452/14, the board observes that this decision, Reasons 2.1.4, discussed user-friendliness in the context of keyword short cuts for invoking applications, i.e. in a context that is very different from the context of enhanced readability in the present case.

The board does not agree with the appellant that a further effect of the method of claim 1 over the method disclosed in D1 was client-side resource conservation, as the board does not accept features F1' and F2' as distinguishing features over the disclosure of D1.

8.3 Consequently, the board considers that claim 1 of the third auxiliary request does not involve any technical

contribution over the teaching of document D1 and lacks inventive step (Article 56 EPC).

First auxiliary request

9. Claim 1 of the first auxiliary request essentially differs from claim 1 of the main request as follows:
   - The data entry defines one or more graphical objects (instead of characters as in the main request).
   - The first visual representation is determined "based on an algorithm locally supported in the communication terminal" (instead of "from a set of character representation types supported in the communication terminal" as in the main request).
   - The received second visual representation is "based on an algorithm supported in the processing center" (instead of "from a set of character representation types supported in the processing center" as in the main request).
   - It omits the step of positioning the cursor for enabling continued data entry by the user.

10. *Inventive step*

10.1 As to inventive step, the appellant argued, based on page 4, line 5, that the invention addressed the problem of resource conservation and licensing issues (statement of grounds of appeal, points 55 and 56) because the image of the graphical objects was received in the communication terminal based on an algorithm supported in the processing center. Thus, resources could be conserved on the communication terminal because the image of the visual representation was received from the processing center and did not have to be generated using resources of the communication

terminal. Furthermore, licensing issues were addressed, because receiving the image of the visual representation could be restricted to communication terminals having a proper licence.

10.2 The board considers that claim 1, which omits the step of positioning the cursor for enabling continued data entry, is directed to a computer-implemented method producing a presentation of information based on the received data entry and the received data of the second visual representation. Hence, the overall result of the method is a computer-implemented presentation of information that serves to present some user entered data in a certain desired presentation format.

Content to be presented (i.e. "what" is presented: in the present case the received data entry) and the manner of its presentation (i.e. "how" the content is presented: in the present case the desired form of presentation according to the second visual representation, for example a text in a server font) may both be considered non-technical aspects, unless they contribute to the solution of a technical problem (see for example decisions T 1143/06 of 1 April 2009, Reasons 5.4; T 1235/07 of 17 March 2011, Reasons 11 and 12; T 1802/13 of 10 November 2016, Reasons 2.1.5; T 2276/13 of 22 November 2018, Reasons 3.6.1; T 1091/17 of 4 June 2020, Reasons 1.6 and 1.7; T 543/18 of 9 May 2019, Reasons 5.4.2). In the case of the first auxiliary request, a contribution to the solution of a technical problem, beyond the mere fulfilling of non-technical requirements, is not apparent.

10.3 As to the alleged effect of resource conservation on the client side, the board considers that performing the algorithm on the server, rather than on the client

where the visual representation is needed for displaying, involves a substantial overhead for sending and receiving data, which also has an impact on the client-side resources. As the specific resource needs of the algorithm for determining the second visual representation are not derivable from the claim, the board does not accept the alleged effect.

The board rather considers that the method underlying claim 1 addresses non-technical licensing issues (i.e. the algorithm has to be performed at the processing center simply because the terminal has no licence). Given such a non-technical constraint, it is obvious to determine the second visual representation at the processing center. In this respect, it is noted that the appellant has explicitly argued that the claimed subject-matter addressed licensing issues. The appellant further argued that receiving the image of the second visual representation could be restricted to terminals having a proper licence. However, there are no features in the claimed subject-matter that would implement a restriction to terminals having a proper licence. In any case, such non-technical licensing requirements can be added as constraints to the problem to be solved and cannot be a basis for acknowledging inventive step. Hence, considering also the above inventive-step objection for the main request, the board does not find any non-obvious technical contribution of the method according to claim 1 of the first auxiliary request over document D4.

10.4 It follows that the subject-matter of claim 1 of the first auxiliary request lacks inventive step (Article 56 EPC).

Revised third auxiliary request

11. *Admissibility*

11.1 Claim 1 of the revised third auxiliary request contains the following amended features as compared to claim 1 of the main request (amendments underlined):

"A method of generating one or more two-dimensional visual objects in a communication terminal (1), the method comprising:

receiving (S1) in the communication terminal (1) a data entry defining one or more characters;

determining (S2) in the communication terminal (1), from a set of character representation types supported in the communication terminal (1), a first visual representation of the characters defined by the data entry with a one-to-one correspondence to the data entry;

transmitting (S5) from the communication terminal (1) a data representation of the characters defined by the data entry via a telecommunications network (2) to a processing center (3);

generating, by the processing center (3), based on the data representation of the characters from the communication terminal (1), a different, second visual representation of the characters from a set of character representation types supported in the processing center (3), the second visual representation being generated as an image in a target font;

receiving (SP3) in the communication terminal (1) from the processing center (3) via the telecommunications network (2) character metrics data for the second visual representation of the characters defined by the data entry;

showing (S3) in a display area (11) of the communication terminal (1) the first visual

representation of the characters defined by the data entry while applying the received character metrics data for the second visual representation of the characters defined by the data entry;
receiving (S7) in the communication terminal (1) from the processing center (3) via the telecommunications network (2) the second visual representation of the characters defined by the data entry; and
overwriting (S9) in the display area (11) the first visual representation of the characters defined by the data entry with the second visual representation of the characters defined by the data entry."

11.2 According to the appellant, the amendment "defined by the data entry" was based on claim 1 as filed, and the generating step was based on the description of the application as filed, page 17, lines 11 to 18 (step S63).

The revised third auxiliary request was admissible in the appellant's view, as it was filed in relation to fresh objections raised by the board in the oral proceedings. In particular, the board had argued that the scope of the expression "second visual representation" could be interpreted as encompassing font information and that the step of receiving character metrics data was anticipated by downloading complete font metrics.

The revised third auxiliary request clarified that the second visual representation of the characters was an image in a target font. Moreover, it clarified that the received character metrics data concerned only the characters defined by the data entry. Hence, this request was filed in the oral proceedings in order to overcome the board's fresh objections.

Regarding inventive step, the appellant argued that document D2 did not relate to characters entered by a user. The invention as defined in the revised auxiliary request allowed an even greater conservation of client resources since the processing center generated the image only for the characters entered. Hence, it was not necessary to transmit the complete data about the fonts used. Moreover, as only an image was transmitted from the server, no client resources needed to be used for rendering, which was a technical effect.

11.3 The board considers that the revised third auxiliary request represents a change of the appellant's case at a very late stage, namely in the oral proceedings before the board, which raises new complex issues to be discussed, such as added subject-matter, interpretation of the claim and inventive step. For example, when considering the basis for the amendments provided by the appellant, the board has *prima facie* doubts as to whether it is directly and unambiguously derivable from the application as filed that the character metrics data is only received for the characters entered, as argued by the appellant.

The appellant's argument that the board had raised fresh objections in the oral proceedings is not convincing. In the board's view, it merely detailed its arguments in relation to a new line of reasoning introduced by the appellant for the first time with its letter replying to the board's preliminary opinion.

For example, point 6 of the board's communication, which summarised the invention from the board's point of view, states the following: "For example, the first and/or second visual representations of the characters

are bitmap fonts or outline fonts". Hence, the appellant was notified in that communication that the board considered, in line with the description, the expression "second visual representation" to be font information.

As to the board's second alleged fresh objection in the oral proceedings, the board merely stated that the wording of claim 1 of the main request ("character metrics data associated with the second visual representation of the characters") was broad and did not appear to be limited to transmitting only character metrics data for the second visual representation of the characters. This statement concerned the interpretation of the wording of claim 1 according to the main request and was not a fresh objection. Moreover, the interpretation of the feature "second visual representation" became relevant only in view of the arguments, raised by the appellant for the first time in its reply to the board's preliminary opinion, that features F1' and F2' were further distinguishing features contributing to an inventive step (see points 4.3 and 4.4.1 above).

11.4 The board concludes that admitting the request would be detrimental to procedural efficiency, and that the way the board interpreted the "second visual representation" was foreseeable from its communication; it became relevant only after the appellant changed its line of reasoning following that communication. In view of that, the board is not convinced that there are exceptional circumstances pursuant to Article 13(2) RPBA 2020 justifying admitting the request at this late stage. Consequently, the board does not admit the revised third auxiliary request (Article 13(2) RPBA 2020).

Second auxiliary request

12. Claim 1 of the second auxiliary request differs from claim 1 of the main request as follows:

- It omits the steps of receiving character metrics data and positioning the cursor for enabling continued data entry by the user.
- It adds the following features essentially corresponding to features of claim 1 of the first auxiliary request (changes to the text of the first auxiliary request underlined):

"receiving (S1) in the communication terminal (1) a data entry corresponding to one or more graphical objects;
showing (S3) in the display area (11) of the communication terminal (1) a first visual representation of the graphical objects, the first visual representation being based on an algorithm supported in the communication terminal (1);
transmitting (S5) from the communication terminal (1) a data representation of the graphical objects via the telecommunications network (2) to the processing center (3);
receiving (S7) in the communication terminal (1) from the processing center (3) via the telecommunications network (2) an image of a different, second visual representation of the graphical objects based on the data representation of the graphical objects and based on an algorithm supported in the processing center (3); and
overwriting (S9) in the display area (11) the first visual representation of the graphical objects with the image of the second visual representation of the graphical objects;".

13. *Inventive step*

13.1 Claim 1 specifies steps S1, S2, S3, S5 and S7 from claim 1 of the main request, which concern receiving and displaying a data entry defining characters, and steps S1, S2, S3, S5 and S7 corresponding to steps of claim 1 of the first auxiliary request, which specify how "a data entry corresponding to one or more graphical objects" is received and displayed. There is no interaction or dependency between the first and the second sets of steps S1, S2, S3, S5 and S7. The board therefore considers that the method in claim 1 of the second auxiliary request is, in essence, an aggregation of the methods of claim 1 according to the main request (without the positioning of the cursor) and the first auxiliary request, respectively. The additional feature specifying that the first visual representation is based on an algorithm supported locally is standard practice. As neither of the aggregated methods involves an inventive step, their combination also lacks inventiveness. In particular, the combined method lacks an inventive technical contribution over D1, since the appellant has omitted the step of positioning the cursor, thereby eliminating the distinguishing feature F2 of the main request that is of central importance for supporting a continuous text data entry, and which the appellant viewed as an example of a continued human-machine interaction within the meaning of decision T 336/14.

13.2 The appellant argued essentially, like for the first auxiliary request, that the claimed subject-matter addressed the problem of resource conservation and

licensing issues, but the board has already dealt with these arguments above when considering the first auxiliary request.

13.3 Consequently, claim 1 of the second auxiliary request lacks inventive step (Article 56 EPC).

Conclusion

14. Since none of the requests admitted into the appeal proceedings is allowable, the appeal is to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chair:

S. Lichtenvort P. San-Bento Furtado

Decision electronically authenticated