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Datasheet for the decision of 12 March 2014

Case Number: T 1186/11 - 3.5.01
Application Number: 01917472.1
Publication Number: 1346291
IPC: G06F17/28
Language of the proceedings: EN

Title of invention:
AUTOMATIC OR SEMIAUTOMATIC TRANSLATION SYSTEM AND METHOD WITH POST-EDITING FOR THE CORRECTION OF ERRORS

Applicant:
D'Agostini Organizzazione S.r.l.

Headword:
Translation system/D'AGOSTINI

Relevant legal provisions:
EPC 1973 Art. 56

Keyword:
Inventive step - (no)

Decisions cited:
T 0006/83, T 1177/97
Case Number: T 1186/11 - 3.5.01

DECISION
of Technical Board of Appeal 3.5.01
of 12 March 2014

Appellant: D'Agostini Organizzazione S.r.l.
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Decision under appeal: Decision of the Examining Division of the European Patent Office posted on 25 January 2011 refusing European patent application No. 01917472.1 pursuant to Article 97(2) EPC.

Composition of the Board:
Chairman: S. Wibergh
Members: P. Scriven
D. Prietzel-Funk
Summary of Facts and Submissions

I. This appeal is against the Examining Division's decision to refuse European Patent application 01917472.1 for reasons of lack of inventive step.

II. In the statement setting out its grounds of appeal, the appellant requested that the decision under appeal be set aside, and that a patent be granted. The appellant also requested oral proceedings, if the Board contemplated deciding against that request.

III. The Board arranged to hold oral proceedings. In a communication accompanying the summons, the Board set out its provisional view that the invention seemed to amount to the automation of how a translator might organise his work. The Board also stated its assumption that the appellant sought the grant of a patent on the basis of the sole request underlying the Examining Division's decision.

IV. In a letter of response, dated 6 November 2013, the appellant submitted a new set of claims and stated that it sought the grant of a patent on that basis. Alternatively, the appellant requested that inventive step be evaluated on the basis of claim 1 of the corresponding US patent 7 580 828, a copy of which was also submitted.

V. Oral proceedings were held as scheduled. The appellant stated his final requests as: that the Examining Division's decision be set aside and that a patent be granted on the basis of the claims of the main or of the auxiliary request, both submitted with the letter dated 6 November 2013.
VI. Claim 1 according to the main request reads as follows:

Automatic/semiautomatic translation system for translating text from one language to another, of the type utilizing a system which comprises means of automatic or semiautomatic translation and means to allow the correction of the translation operated by the computer and means to implement sentence/word dictionary/ies into the computer system, and word process means in post-editing for check and correction of the mistakes of what has been translated, said automatic/semiautomatic translation system providing viewing means on monitor of a translation-interface involving a couple of text-columns, wherein each text-column includes parallel scrolling field means, characterized in that said couple of text-columns is horizontally divided, realizing at least two superimposed couples of parallel scrolling fields, forming a "+" structure in which, one couple of scrolling fields is below for translation and correction after translation, forming a couple of main translation and correction fields (F1, B-U) and the second couple is above these for accumulation of what has been translated, checked and corrected, forming a couple of accumulating fields (A1, U/Z) and wherein, said automatic/semiautomatic translation system provides the following steps:

a) making an automatic translation of the entire text;

b) after said automatic translation, using:
- transfer means (Memline) to progressively transfer the couples of top paragraphs of said main translation and correction fields (F1, Z/V) to said accumulating fields (Al, Z/V), said automatic/semiautomatic translation system being further characterized by having correction-autolearning means and
- retranslation means to retranslate at least the first paragraph to check in said couple of main translation and correction fields (F1, B-U), said automatic/semiautomatic translation system providing means for automatically [sic] retranslation of the remaining paragraphs.

VII. Claim 1 according to the auxiliary request reads as follows:

A computer translation system having viewing means on a monitor of a translation-interface involving a couple of text-columns, characterized in that said couple of text-columns are divided horizontally to form at least two pairs of parallel scrolling fields, wherein each text-column includes vertical parallel scrolling field means, said at least two pairs comprising a main pair of scrolling fields including a main translation field having text to be translated, wherein the system translates the text in the main translation field to provide translated text, and a correction field, having the translated text, for checking and correcting the translated text, and a
second pair of scrolling fields, located above the main pair, including first and second accumulating fields for accumulating text from the main translation field and the correction field, respectively, and wherein, said translation system has transfer means to progressively transfer a portion of the texts in said main translation field and said correction field to said accumulating fields.

VIII. The appellant's arguments can be summarised as follows.

According to T 1177/97, Translating natural languages/SYSTRAN, not published in the OJ EPO, it was found (catchword 2) that, "Information and methods related to linguistics may thus in principle assume technical character if they are used in a computer system and form part of a technical problem solution." The same decision also stated that, "Implementing a function on a computer system always involves, at least implicitly, technical considerations and means in substance that the functionality of a technical system is increased. The implementation of the information and methods related to linguistics as a computerized translation process similarly requires technical considerations and thus provides a technical aspect to per se non-technical things such as dictionaries, word matching or to translating compound expression into a corresponding meaning."

According to T 0006/83, Data processor network/IBM, OJ EPO 2005, 5, the co-ordination and control of the internal communication between programs and data files held at different processors in a data processing system was to be regarded as solving a problem which
was essentially technical.

The Examining Division erred by separately treating those features involving the different text fields and the transfer of text between them and those involving the additional complete translation. The invention relied on a strict interaction between the operator and the computer, because an accurate and speedy translation could not be obtained by either of them alone. However, in prior art computer-operator systems, the "working condition was really boring and wearing, causing possible mistakes due to the continuous need to jump from one field to the other identifying the corresponding paragraphs," and, "the solution proposed by the applicant is new and inventive because getting this kind of unusual division of the working fields together with the feature of providing the complete automatically translated text considerably improves the translation jobs, both for quality and speed."

According to the Guideline for Examination in the European Patent Office, when features of a user interface "are combined with interaction steps or means or when they concern technical information (e.g. internal machine states), the examiner must check whether they are necessary for achieving a particular technical effect, for example by enhancing the precision of an input device. The technical effect achieved might be a more efficient man-machine interface." The present invention provided just such an enhanced man-machine interface.

Document D1 (WO-A1-99/45476) disclosed a system using two columns, which scroll together. In the system according to D1, there were automatic and interactive modes. In the former, the whole text was automatically
translated, but in the latter, translation proceeded paragraph by paragraph: when the user had checked, and possibly corrected, the computer's translation of one paragraph, the next paragraph would be translated. The auto-learning in D1 applied to each subsequent paragraph, so that if a user, while checking paragraph 1, taught the system some new translation rule, that rule would be applied when paragraph 2 was translated.

The invention according to the present application differed in several ways. Firstly, unlike the interactive mode of D1, there was first a complete automatic translation, rather than a translation of only one paragraph. Secondly, each of the columns was horizontally divided, so that the screen presented four fields. As the user checked the translation, paragraphs that had been checked were moved from the lower right field to the upper right, and the corresponding paragraphs in the original text were moved from the lower left to the upper left. Thirdly, when the system learnt some new translation rule, it was applied so as to re-translate the entire text. In D1, it would be applied to the next paragraph to be translated, but that would not be a re-translation, because the paragraph had not previously been translated.

The use of the horizontal division of columns provided a technical effect. In D1, while the two columns scrolled together, there was no real alignment between the two, simply because the original and translated texts would not be equally long. That meant that the user would have difficulty locating the correct position in the original text, when checking a particular passage in the translation. The horizontal division, however, provided an easy means of alignment, because the first paragraphs in the lower pair of
fields would always correspond.

The re-translation went beyond a simple find-replace tool such as word processors provided, because it took account of grammatical rules. For example, the change of one noun (e.g. "modelo" in Italian) to another ("modela") would be accompanied by concomitant changes to articles and adjectives. Such re-translation greatly reduced the time needed to produce a correct translation.

**Reasons for the Decision**

*Introduction*

1. The invention concerns translation between natural languages. A computer first translates a text, and a human operator checks and corrects the translation. The way in which the computer makes its translation is not important to the invention, but it is important to understand that, as the operator checks the translation and makes corrections, the computer can "learn", so that future translations will be better. How the learning takes place is also not part of the invention.

2. The invention builds on the appellant's earlier invention, which was the subject of document D1, WO-A1-99/45476, and which includes automatic translation and the "learning" of new translation rules. In the system according to D1, the original text is presented in one column, the translation in a second. The two columns scroll together, but that does not mean the two texts are precisely aligned: if the translated text is
longer than the original, and is scrolled down ten lines, the original will also scroll down ten lines, which is too far for proper alignment.

3. In the system of D1, the operator may choose between a completely automatic translation and interactive translation. It is not clearly stated what happens in the former, but the appellant's explanation was that the computer translates the whole text by itself, and that is it. The alternative, interactive, translation proceeds one sentence, or paragraph, at a time. The operator is presented with a suggested translation in a pop-up window, and can make corrections. Approved translations are then accumulated in the right-hand column.

4. When, in D1, a new translation rule is learnt, it will be applied to subsequent translations. The first opportunity for that is when the computer translates the next sentence or paragraph.

5. The present invention organises the work differently. Instead of using two columns with a pop-up window for checking, the screen is divided into four fields, arranged in a square. The lower two fields contain, on the right, the translated text that remains to be checked, and, on the left, the corresponding original text. The upper pair of fields contains, on the right, the checked paragraphs of the translation, and, on the left, the corresponding original text.

6. As the appellant explained it, and demonstrated during oral proceedings before the Board, the operator perceives two text columns with a common horizontal dividing line. Above the division is the text in the original version (left) and in the automatically
translated, but manually checked version (right); below it is also the original text (left) as well as the automatically translated, but as yet unchecked text (right). The first paragraphs (on the left and right) below the division correspond to one another and are thus presented synoptically. It is, therefore, straightforward for the operator to find matching places in the original and translated texts.

7. The invention also uses newly learnt translation rules differently from D1. Since there is now a translation of the entire text from the start, the new rule is incorporated by making a new translation.

The main request

8. In the present case, there are two differences over the system of D1. Firstly, there is the layout using four fields; secondly, there is the re-translation when a new rule is "learnt".

9. As the appellant explained it, the operator, a translator, using the system disclosed in D1, has to compare original and automatically translated text passages, so as to refine the machine translation and must often spend a lot of time searching for corresponding portions of text. That is one problem the horizontal division solves since it aligns those paragraphs. However, it results directly from the way the translator wants to organise his work. Indeed, a translator working by hand, and checking a translation, will place original and translated texts side by side for ease of reference. The translator wants to do that independently of the technical substrate, whether
pencil and paper or a computer screen and keyboard.

10. The horizontal division also serves a second purpose. It helps the translator keep track of what has been checked, and what remains to be checked. But that too is a question of how the translator wants to organise his work, and is independent of the technology used.

11. Since translation is not a technical activity, the Board does not consider the layout, in particular the four fields with a horizontal division, as solving a technical problem. It is a technically implemented solution to a non-technical problem. As a result, it cannot contribute to inventive step.

12. A translator who notes, when checking the translation, that some word has been wrongly translated, will often want to apply the correction throughout the text. To take an example from the application, if the translator notes that the translation of "mezzi di raffronto" has been wrongly translated as "confront means" and considers that "comparing means" is better, he will want to apply corresponding changes throughout the document. Working with pencil and paper, that would no doubt be laborious and he might ask an assistant to do it. Having the computer do it is no more than automating what the translator wants to do or have done. The first impetus for "retranslation" comes from the translator. The programming of a computer to learn new rules of translation and to apply them to a text is no doubt difficult, but it is an acknowledged part of the prior art. What the present invention does is use that capability differently, because the translator wants to organise his work differently. Again, the Board sees a technically implemented solution to a non-technical problem, which does not contribute to
inventive step.

13. The appellant has argued that one should not split the features relating to alignment of text from those relating to re-translation, because they both address the problem of speeding up the translation process. The Board acknowledges that they both do seem to contribute to that, but since the problem is not a technical one, it makes no difference.

14. The appellant correctly argued that the implementation on a computer involved technical considerations. However, the Board does not see that the technical contribution goes beyond specifying that the computer should do what the translator wants of it. As such, the technical implementation cannot be other than obvious. That is no reflection on the usefulness of the invention, but rather a consequence of how non-technical features of an invention are treated according to the Boards' jurisprudence.

15. The appellant's arguments regarding T 1177/97 and T 0006/83 relate to the overall requirement of technicality. That has not been an issue in this case. The issue, rather, has been how non-technical features, defined as part of an overall technical system or method, are treated when assessing inventive step.

16. In summary, the Board sees the subject matter of claim 1 as a system that uses a computer for organising work the way a translator wants it to be organised. It is common ground that the computer could do that, that it was able to make and re-make translations, and that it was able to display different parts of the text on different parts of a screen. Once the translator has decided how that should be organised, the computer
implementation would, in the Board's view, have been obvious.

17. The Board, therefore, cannot allow the main request.

The auxiliary request

18. It is common ground that claim 1 according to this request does not define any feature that is not also defined in claim 1 according to the main request. It follows that its subject matter cannot have been less obvious to the technically skilled person, and the Board must conclude that it does not involve an inventive step.

19. The Board, therefore, cannot allow the auxiliary request.
Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

T. Buschek S. Wibergh

Decision electronically authenticated