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D E C I S I O N
of 16 December 2005

Case Number: T 0811/02 - 3.5.01

Application Number: 97305808.4

Publication Number: 0837406

IPC: G06F 17/30

Language of the proceedings: EN

Title of invention:
Data retrieval system and method

Applicant:
SYMBOL TECHNOLOGIES, INC.

Opponent:
-

Headword:
Data retrieval/SYMBOL TECHNOLOGIES

Relevant legal provisions:
EPC Art. 56, 123(2)

Keyword:
"Inventive step - main and first, second, fourth and fifth auxiliary requests (no)"
"Added subject-matter - third auxiliary request (yes)"

Decisions cited:
-

Catchword:
-

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Case Number: T 0811/02 - 3.5.01

D E C I S I O N
of the Technical Board of Appeal 3.5.01
of 16 December 2005

Appellant: SYMBOL TECHNOLOGIES, INC.
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New York 11742-1300 (US)

Representative: Roberts, Gwilym Vaughan et al.
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 16 January 2002 refusing European application No. 97305808.4 pursuant to Article 97(1) EPC.**

Composition of the Board:

Chairman: S. Steinbrener
Members: W. Chandler
G. Weiss

Summary of Facts and Submissions

I. This appeal is against the decision of the examining division to refuse the application on the grounds that the subject-matter of claim 1 of the main and first and second auxiliary requests did not involve an inventive step (Article 56 EPC).

II. The examining division reasoned as follows:

D5 (IBM Technical Disclosure Bulletin: "Distributing Uniform Resource Locators as Bar Code Images", Vol. 39, January 1996, No. 1, page 167, Armonk, NY, US) described a method of accessing a computer network file according to the pre-characterising part of claim 1, namely representing the address of the network file by a bar code, reading the bar code with an optical reader and deriving the file address from the bar code to access the network file.

The technical effect of the invention (i.e. the features of the characterising part of the claim, namely reading the bar code "off-line", storing it in the reader, and subsequently downloading it to a user computer to access the network file) was that it could be used for bar codes that were remote from the computer. The technical problem was how to modify D5 to achieve that effect.
This problem was independent of the actual information represented by the bar code. The skilled person would therefore not have restricted the search for a solution to documents that related to bar codes representing network file addresses, but bar code technology in general.

Thus, the skilled person would have considered D6 (US-A-4 471 218), which related to portable data entry terminals similar to D5. D6 disclosed at column 2, lines 18 to 21 the effect of the invention, namely achieving portability. D6 solved this in the same way as claim 1, namely reading a bar code off-line (column 5, lines 7 to 8), storing the data in the memory of the reader (column 5, line 10), and downloading the data from the reader to a computer (column 6, lines 21 to 31).

Claim 1 therefore did not involve an inventive step over D5 and D6.

Regarding claim 1 of the first auxiliary request, it was implicit that the scanned bar code data had to be converted to the file address in order to access the file. Performing the conversion in the computer, being one of the two processing devices in the system, was an obvious choice of two alternatives.

The qualification of the data in the reader as "raw data" in claim 1 of the second auxiliary request reinforced the point that the data was converted in the computer, but did not add anything new.

III. On 15 March 2002, the appellant (applicant) lodged an appeal against the decision and paid the prescribed fee on the same day. With the grounds of appeal, dated 27 May 2002, the appellant filed claims of a first to fifth auxiliary request, the first and second auxiliary requests corresponding to those refused by the examining division.

The appellant also made an auxiliary request for oral proceedings.

IV. In the communication accompanying the summons to oral proceedings, the Board identified the patentability issues that needed to be discussed, and expressed doubts that claim 1 of the third auxiliary request was disclosed in the originally filed application.

V. At the oral proceedings, the appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims filed with the letter dated 24 September 1999 (main request), or alternatively on the basis of the first auxiliary request submitted at the oral proceedings, or the second to fifth auxiliary requests filed with statement of grounds.

At the end of the oral proceedings, the Chairman announced the Board's decision.

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

"A method of accessing a computer network file having a file address, comprising the steps of

representing data identifying the file address in a bar code symbol (697);

reading the bar code symbol with an optical reader (690) to produce said identifying data;

deriving the file address from the identifying data; and

accessing the corresponding computer network file, characterised in that the bar code symbol is read off-line and further characterised by:

storing said data in the reader; and

subsequently downloading the data from the reader to a user computer (6150) connected to the computer network to access the network file."

Claim 1 of the first auxiliary request reads as follows:

"A method of accessing a computer website having a site address, comprising the steps of:

representing data identifying the site address in a bar code symbol (697);

reading the bar code symbol with an optical reader (690) to produce said identifying data;

deriving the site address from the identifying data; and

accessing the corresponding website, the method being characterised by:

reading the bar code symbol off-line, the bar code symbol accompanying a product;

storing said data in the reader;

subsequently downloading the data from the reader to a user computer (6150) connected to a computer network; and

converting the identifying data to the site address to access the website to obtain additional information about the product."

Claim 1 of the second auxiliary request adds the term "raw" before the word "data" in the last two features of the main request.

Claim 1 of the third auxiliary request adds to the end of the main request the feature "the optical reader being included in a portable, battery operated data

collection terminal having a display and the method further comprising the step of transferring the data from said computer network file to the terminal for display to the user on the display."

Claim 1 of the fourth auxiliary request adds to the main request after the words "characterised in that" the feature "the optical reader is a portable, battery operated wireless optical reader and" and adds to the end of the claim the feature "wherein the downloading operation comprises wireless communication of the data."

Claim 1 of the fifth auxiliary request adds to the main request after the words "characterised in that" the feature "the optical reader is a personal digital assistant (PDA)," and replaces the word "reader" by "PDA" in the last two features.

VII. The appellant argued as follows:

The examining division's approach was not legally correct because it posed the problem of achieving portability having seen the invention. If that problem was posed the invention might have seemed obvious, but it omitted the contribution made by recognising the problem itself.

In 1996, at the time of D5 and the priority date of the patent, the mindset was that if you found a link to a file or website address, you would look it up immediately and not make a copy of it or store it as you might with ordinary data. The skilled person would therefore not have considered the problem posed in the

present context. The information content of the data, namely file or website addresses, was therefore relevant, contrary to the examining division's view.

Claim 1 of the first auxiliary request specified that the bar code accompanied a product and it was scanned to give additional information about that product. This increased sales because the customer could be reminded about a product seen earlier in a shop. D5 did not disclose a bar code accompanying a product so there was no need to remind the customer about it. Similarly, there was no product or reminder in D6, but only a waitress taking an order.

Claim 1 of the second auxiliary request clarified that the data was converted to the file address after downloading from the reader. This was a non-obvious solution to the problem of minimising processing in the reader. The examining division's argument was flawed because it was based on the assumption that the skilled person would have recognised that the point at which the data was processed was important, and that the skilled person would further have recognised that there were two possible points at which this could have taken place.

The amendment of displaying the accessed file data on a display in the optical reader in claim 1 of the third auxiliary request was supported by various parts of the originally filed description including: page 156, lines 16 to 20, page 120, lines 12 to 15, page 28, last line, page 29, lines 16 to 18, page 138, line 3, page 130, line 23 to 32 and page 90, lines 7 to 11.

There was no reason to add a display to the pen of D5. In D6, the user would not have wanted to see a display of the data accessed in the computer. Furthermore, there was no bidirectional transfer of data in D6, so that the accessed data could not be displayed.

Neither D5 nor D6 suggested a wireless optical reader let alone downloading using wireless communication as specified in claim 1 of the fourth auxiliary request.

None of the prior art disclosed a personal digital assistant (PDA) with a bar code scanner as specified in claim 1 of the fifth auxiliary request. A PDA was a handheld device with a keyboard and a screen running organisational software such as a diary program. The conventional portable data entry terminals with bar code readers described in D6 were not PDAs.

Reasons for the Decision

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

Main request

2. The facts relating to claim 1 of the main request are common ground. The only point of contention is whether the examining division's approach in posing the problem and finding the solution to be obvious was correct.

3. The appellant considers that the problem was posed with hindsight. The Board first notes that when using the problem and solution approach as explained for example

in the Guidelines for Examination at C-IV, 9.8.2, the problem is posed based on the difference between the claim and the closest prior art and is therefore by definition posed with hindsight. The question is whether it is inadmissibly posed with hindsight, for example with elements or pointers to the solution. In such a case, the problem itself might contain inventive elements. This is generally avoided by deriving the problem from the effect of the distinguishing features and not directly from the features themselves.

4. In the present case, the distinguishing features are reading the bar code "off-line", storing it in the reader, and subsequently downloading it to a user computer to access the network file. The examining division found that the effect of these distinguishing features was to enable reading of bar codes representing file addresses that were remote from the computer, so that the objective technical problem was how to modify D5 to achieve that effect. The Board judges that this formulation is in line with the required procedure and that the resulting problem does not contain any elements or pointers towards the features in the claimed solution.

5. As a further safeguard against a problem that is inadmissibly posed with hindsight, it is also generally checked whether the problem is already known or obvious, so that the skilled person would consider solving it. In the present case, this check is satisfied because the problem of reading data that is remote from the apparatus is derivable from D6, as explained by the examining division (see point II, above). Moreover, the Board notes that D6 discloses, at column 1, lines 23 to

27, that "data that is meaningful to capture is found anywhere". The Board therefore judges that the skilled person would indeed consider solving the problem of reading bar codes that are remote from the computer.

6. The only difference between the problem posed by the examining division and that implied in D6 is that the bar code data relates specifically to file addresses. The examining division considered that the problem was independent from the actual information represented by the bar code (see point II, above). The appellant disagreed because at the priority date of the patent links to a file or website address were said to be considered differently from ordinary data (see point VII, above).

7. The Board agrees with the examining division. Firstly, the nature of the information is not relevant to the technical problem since it has no effect on the operation of the claimed parts of the system, which all work in the normal way. The situation might have been different if the nature of the data had implied a technical difference, e.g. if website addresses had required a particular form of bar code or bar code reader. Secondly, the appellant's argument is effectively a claim that there is a prejudice against storing bar codes. However, the appellant produced no evidence of the "mindset" concerning website addresses at the priority date of the application. In fact, the Board notes that D5 discloses that URLs (website addresses) that cannot be currently located are often "difficult to remember", implying more that they should be stored rather than discarded.

8. The Board therefore judges that the skilled person would consider D6 and find the claimed solution to the technical problem as argued by the examining division (see point II, above). Claim 1 of the main request accordingly does not involve an inventive step (Article 56 EPC).

First auxiliary request

9. Claim 1 of the first auxiliary request essentially adds to the main request that the bar code symbol accompanies a product and that the network file address is a website that is accessed to obtained additional information about the product.

10. Contrary to the appellant's view (see point VII, above), the Board judges that D5 does disclose a bar code accompanying a "product". Firstly, the Board judges that the advertising material such as magazine pages disclosed in D5 at paragraph 4 is indeed accompanying a product, namely the object being advertised. Accessing the bar code would necessarily give additional information about the advertised product as claimed. Secondly, even considering any of the other items mentioned in D5 at paragraph 4, namely business cards, toys and other paper objects as a "product", accessing the accompanying bar code also gives additional information that is in some way connected to the product. However, the Board judges that the nature of the relationship of the information to the product is a non-technical element that cannot contribute to the technical problem. Similarly, the effect of this difference mentioned by the appellant, namely increased sales does not make a technical contribution to the

problem. In any case, the problem remains essentially the same as in the case of the main request, namely reading bar code data on remote products. Since, as pointed out above, D6 discloses that data that is meaningful to capture can be found anywhere, and hence on "products", the Board judges that the skilled person would consider D6 to solve this problem and find the claimed solution for the same reasons as given in connection with the main request.

11. Claim 1 of the first auxiliary request accordingly does not involve an inventive step (Article 56 EPC).

Second auxiliary request

12. Claim 1 of the second auxiliary qualifies that the data stored in the reader is "raw data", thereby implying that the data is converted to the file address in the computer after downloading. Contrary to the appellant's view, the Board does not judge that the examining division's argument was flawed. It is self-evident that a conversion must be performed somehow and the skilled person would consider one of the two processing devices already present in the system. The advantages of processing in the computer would have been readily appreciated in advance.

13. Claim 1 of the second auxiliary request accordingly does not involve an inventive step (Article 56 EPC).

Third auxiliary request

14. Claim 1 of the third auxiliary request essentially adds to the main request that the optical reader is included

in a portable, battery operated data collection terminal having a display and that the (file) data transferred from the computer is displayed on the display.

15. The latter feature of displaying the accessed file data on the display in the optical reader is associated with an embodiment of the invention apparently introduced at page 40, line 17 of the published application. In this embodiment, the accessed data is displayed on the reader, now called a portable terminal, in order to "browse" the internet, for example. However, the Board judges that there is no unambiguous disclosure of the combination of this embodiment and the embodiment represented by the main request, apparently introduced at page 29, line 35, namely reading and storing the file address data for later downloading to the computer.

16. The appellant cited various parts of the original description that were said to support the combination of these different embodiments. However, even the appellant admitted that none of these passages explicitly disclosed displaying data accessed by the computer on the display in the optical reader. In fact, the Board judges that each of these passages relates only to one or the other of the storing or the browsing embodiments, but not to a combination of both. Even the most promising statement at page 40, line 17, which states that the browser embodiment "can be used as an enhancement or adaptation of the above embodiments", is not enough because the application is complex and contains many embodiments described before the browser embodiment so that it is not certain that the statement embraces the storing embodiment. Moreover, it does not

appear to make sense to combine these two embodiments because in the storing embodiment the address is stored for later downloading whereas in a browsing situation one is normally concerned with immediate viewing of the data.

17. Claim 1 of the third auxiliary request accordingly extends beyond the content of the originally filed application (Article 123(2) EPC).

Fourth auxiliary request

18. Claim 1 of the fourth auxiliary request essentially adds to the main request that the optical reader is portable, battery operated and uses wireless communication for downloading the data to the computer.

19. There is no dispute that D6 discloses a portable, battery operated optical reader. D6 also discloses at column 2, lines 49 to 53 that the data from the portable terminal is transmitted to the computer via an optical interface. However, the Board judges that the use of wireless transmission is a well known and obvious alternative to optical transmission for remote devices and the skilled person would select it dependent on the circumstances, e.g. required performance, cost etc.

20. Claim 1 of the fourth auxiliary request accordingly does not involve an inventive step (Article 56 EPC).

Fifth auxiliary request

21. Claim 1 of the fifth auxiliary request essentially adds to the main request that the optical reader is a personal digital assistant (PDA).

22. In the Board's judgement, the term "PDA" is rather vague. Even the appellant's definition of a PDA as being a handheld device with a keyboard and a screen capable of running organisational software such as a diary program is in technical terms only a portable processing terminal with a keyboard and a screen. Thus, contrary to the appellant's view, the Board judges that the conventional data entry terminals disclosed in D6 fall under this term.

23. Claim 1 of the fifth auxiliary request accordingly does not involve an inventive step (Article 56 EPC).

24. Since there are no other requests, it follows that the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

P. Guidi S. Steinbrener