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Case Number: T 0787/06 - 3.5.01

Application Number: 96309036.0

Publication Number: 0848337

IPC: G06F 17/30, H04L 29/06

Language of the proceedings: EN

Title of invention:
Server with automatic document assembly

Applicant:
Sony Deutschland GmbH

Opponent:
-

Headword:
Automatic document assembly/SONY DEUTSCHLAND

Relevant legal provisions:
-

Relevant legal provisions (EPC 1973):
EPC Art. 54(2), 56, 112(1)(a)

Keyword:
"Inventive step - all requests (no)"
"Automation of manual selection"
"Referral of questions to EBoA - (no)"
"Suspension of proceedings - (no)"

Decisions cited:
J 0016/90

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0787/06 - 3.5.01

D E C I S I O N
of the Technical Board of Appeal 3.5.01
of 18 November 2008

Appellant: Sony Deutschland GmbH
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 23 December 2005 refusing European application No. 96309036.0 pursuant to Article 97(1) EPC 1973.**

Composition of the Board:

Chairman: S. Steinbrener
Members: W. Chandler
P. Schmitz

Summary of Facts and Submissions

I. This appeal is against the decision of the examining division to refuse the application on the grounds that claim 1 of the main and the auxiliary request did not involve an inventive step over M.F. Wyle: "A Wide Area Network Information Filter", First Intern. Conference on Artificial Intelligence Applications on Wall Street, 9-11 Oct. 1991, New York, NY, US (IEEE 1991), pages 10 to 15 (D8). The following document was also mentioned in the decision:

D10: F. Ruggiero et al.: "On-Line Hypermedia Newspapers: An Experiment with 'L'Unione Sarda'", International Journal of Modern Physics C, Vol. 5, No. 5, 1994, pages 899 to 905.

II. In the statement setting out the grounds of appeal, the appellant requested that the decision be set aside and that a patent be granted on the basis of the originally filed claims, a first auxiliary request containing an amended claim 1, or a second auxiliary request, corresponding to the refused auxiliary request. The appellant also made an auxiliary request for oral proceedings.

III. In the communication accompanying the summons to oral proceedings, the Board expressed doubts about the inventive step of the requests. In a response, the appellant made several observations on the Board's communication.

IV. Based on a substantiated request of the appellant's representative, the oral proceedings were postponed.

V. In a subsequent letter, the appellant requested, as auxiliary requests three and four, that, in the light of the referral of questions to the Enlarged Board of Appeal in G 3/08, two further questions be referred and that the present appeal be stayed. It was suggested that it might therefore be expedient to postpone the oral proceedings. In response, the Board stated that the questions referred in G 3/08 did not appear to have an impact on the present appeal, and maintained the date of the oral proceedings.

VI. 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 main request (i.e. claims as originally filed) or auxiliary request 1 (with an amended claim 1 filed with letter of 24 April 2006, and claims 2 - 13 as originally filed), or auxiliary request 2 (claims 1 - 10 filed during the oral proceedings before the examining division on 11 November 2005). The appellant additionally requested that the questions of law filed with letter of 13 November 2008 be referred to the Enlarged Board of Appeal (auxiliary request 3) or that the appeal be stayed pending the issuance of an opinion of the Enlarged Board of Appeal in G 3/08 (auxiliary request 4).

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

"A server computer for a data communication system and adapted to transmit a document via a network to a client computer in response to a request therefrom; said server comprising:

article memory means (23) for storing a plurality of article documents and respective bibliographic data;

selection rule storage means for receiving from a system administrator and storing an article document selection rule;

automatic document assembly means (17) for retrieving from said article memory means (23) a subset of said plurality of article documents and assembling a document from at least part of each of said subset of article documents, said subset of article documents being selected according to the respective bibliographic data using said article document selection rule; and

transmission means (15,17) responsive to said request for transmitting the assembled document onto said network for delivery to said client computer."

Claim 1 of the first auxiliary request essentially differs in that the administrator in the second feature is qualified as "being a user having privileges allowing changes to documents in the article memory means" and the last feature is supplemented with "without requiring a user of the client computer to register or log in to the server".

Claim 1 of the second auxiliary request adds to claim 1 of the main request in the first feature that the documents are "each comprising a title and a body text portion", at the end of the third feature that the assembled document is "comprising the titles of each of said subset of article documents and a hypertext link to the respective article document", and at the end of the claim that:

" said automatic document assembly means comprises:

assembled document memory means for storing said assembled document (23); and

automatic update means (17) responsive to the input of a new article document for storing said new article document in said article memory means (23), retrieving said assembled document from said assembled document memory means (23), amending said assembled document to include at least part of said new article document and storing the amended assembled document in said assembled document memory means."

VIII. The appellant argued essentially as follows:

The present invention related to electronic publication of documents, in particular in the form of websites formed of documents in HTML format accessible via the Internet, or an intranet.

The subjective problem addressed by the present invention was that maintenance of a website to keep its content up to date was cumbersome since it required skilled input from the site administrator and often knowledge of HTML, a technical skill.

The present invention sought to solve this problem by providing means to automatically assemble a document, e.g. a webpage, based on documents stored in a memory. A subset of the documents was selected from the memory based on bibliographic data and a selection rule. Then, at least part of each document of the subset was used to form the assembled document. It was important to note that the article selection rule was stored in advance in a memory by a system administrator whilst

the assembled document was transmitted to a client computer in response to a request therefrom.

The invention enabled the assembled document to be updated without skilled input as new documents were loaded into the article memory means, whilst still enabling the administrator to control the content of the assembled document. Automating a process so as to reduce or eliminate the need for technically skilled input from a user was a technical problem.

The invention required that the person determining the content of the published document was different than the person viewing it. For clarity, these persons were called "administrator" and "user" in the claim, but could equally have been simply called "first person" and "second person". In fact, the description of a preferred embodiment recognised two administrators: a system administrator and a forum administrator. In all likelihood the former would have been a technically skilled person and the latter a journalist or editor, but it was not a feature of the invention that the administrator in the claim was technically or non-technically skilled.

The setting of the rule by the administrator was not a matter of user preference because the user could not decide what information he got; this was determined by the selection rule.

Dl0 was the closest prior art because it most closely described a system having the same purpose as the present invention: to publish a frequently updated

webpage whose content was controlled by the publisher or site administrator.

Dl0 disclosed a prototype of a daily-updated on-line newspaper. The entire content of the newspaper was converted to HTML format by a PERL program every night and published over the World Wide Web. The output was a static set of web pages for each edition of the paper; a "pre-press".

The newspaper of D10 could only be updated by converting the entire edition. In the invention, if articles were added, the document might or might not have been updated depending on the selection rule.

D10 did not disclose that the conversion referenced a selection rule.

Compared with D10, the invention solved the problem of updating the electronic newspaper more easily without the need for manual intervention (e.g. in the form of arranging HTML codes).

The inventive step had to be judged by the standard at the filing date of the application, i.e. 1996. At this time, the Internet was in its infancy and was essentially confined to government and academic circles.

The obvious solution to this problem would be to update the paper more frequently, and to maybe improve the communication links, not to select articles using a selection rule.

Claim 1 of the first auxiliary request made more explicit the difference in roles of the administrator and user: the former had privileges to edit articles whereas the latter was not required to log in or register and could thus have been an anonymous guest. This further distinguished the present invention from prior art such as D8, which described systems premised on the fact that the user was identified and always linked selection rules to specific users.

In the second auxiliary request, claim 1 had been amended to include features that emphasised the purpose of the present invention in publishing a webpage, rather than filtering e-mail or news messages, as in D8. In particular, it specified that the trigger for updating the document was the addition of an article that was checked against the selection rule, not a user command as in D8. In D10, there was a defined periodicity that was determined by the publishing schedule, i.e. every night.

The proceedings in the present case should be stayed if there was any possibility that the outcome of case G 3/08, pending before the Enlarged Board of Appeal, could affect the reasoning in the present case. The questions, in particular question 4, asking whether all features resulting from programming a computer contributed to the technical character of a claim, addressed to some extent the question of what was technical, but did not fully address the important issue of to what extent non-technical aspects of a problem addressed by an invention, or the aim of an invention, may influence the technically skilled person in the solution to a problem.

The following additional questions should therefore be referred:

a) To what extent is a non-technical aim, which defines the problem to be solved in the "problem and solution" approach to assessment of inventive step, relevant to the selection of the closest prior art and the issue of what modifications to a prior art disclosure the skilled person "would" make.

b) To what extent can an inventive step lie in overcoming a non-technical, e.g. economic, prejudice in a particular art?

Question a) was pertinent to the present invention because many of the prior art documents relied upon by the examining division related to the problem of providing for individual users customisable filters that could be applied to high volume news feeds. On the other hand, the present invention sought to address a problem of minimising the technical skill and effort required in updating a site that was published to be accessed by multiple users.

Question b) was relevant to the present case because D10 related to the automated conversion of paper publications to electronic form, after the selection and editing of articles to be included in the publication had been completed. The present invention could be regarded as lying in overcoming the prejudice that the selection of articles for publication must occur before conversion to electronic form for publication as a website and should be performed by

human editors. EPO case law recognised that an inventive step may lie in overcoming a technical prejudice in the art.

Reasons for the Decision

1. The appeal complies with the requirements referred to in Rule 65(1) EPC 1973 and is therefore admissible.

2. The application relates to generating automatically and transmitting documents containing articles over the internet e.g. for a forum on a website.

3. The user sends a request for a document from a client computer (Figure 2: 27) to a server computer ("ola" server 9). The server contains a database of article documents (23) with bibliographic data (column 12, lines 4 to 8) and assembles the document from "at least part of" a subset of article documents. The subset is selected according to the bibliographic data using a "selection rule" received from a system administrator (e.g. the period of time that the document is available - column 12, line 53 to column 13, line 5). The claimed "at least part of" the subset is taken to mean for example that only part of the text of the full article is displayed (e.g. headlines or teasers and link to the complete text - column 11, lines 52 to 55).

Main request

4. It is common ground that D10 is the closest prior art and that it discloses the following features of claim 1:

A server computer (WWW server at CRS4 in Figure 1) for a data communication system and adapted to transmit a document (electronic version of the newspaper "L'Unione Sarda") via a network (Internet) to a client computer in response to a request therefrom; said server comprising:

article memory means (database mentioned at page 900, lines 4 to 6 and the disks shown in Figure 1) for storing a plurality of article documents and respective bibliographic data (e.g. title, text, photo, caption used by the indexing article unit - page 900, lines 4 to 6);

automatic document assembly means for assembling a document (PERL programs mentioned at page 900, lines 4 to 8) from at least part of each of said article documents (Figure 2: opening text of articles); and

transmission means responsive to said request for transmitting the assembled document onto said network for delivery to said client computer (implicit from "clicking on the relevant hot-links" - page 902, lines 1 and 2)."

5. The subject-matter of claim 1 therefore differs at most from D10 in that:

i) there are selection rule storage means for receiving from a system administrator and storing an article document selection rule; and

ii) a subset of article documents are retrieved, selected according to the respective bibliographic data using said article document selection rule.

6. The appellant considers that the use of a selection rule to select a subset of articles solves the problem of updating the document (electronic newspaper) more

easily without the need for manual intervention (e.g. in the form of arranging HTML codes).

7. The description gives examples of the selection rule as the maximum number of links by time, how long articles are available and what priorities they have. However, the wording of the claim is very broad, covering the selection of any subset of articles according to a selection rule relating to bibliographic data. In the Board's view, there are several interpretations of D10 that disclose such a selection. Thus D10 discloses more of the claimed subject-matter than admitted by the appellant, resulting in a smaller (if any) distinction and a less ambitious, i.e. more specific, formulation of the problem.

8. In a first interpretation, D10 actually discloses selecting a subset of articles based on a selection rule. D10 describes at the bottom of page 903 that another feature of the system is to retrieve articles in back issues of the newspaper based on a keyword search. In the Board's view, the articles that are searched must also be stored in the database mentioned at page 900, lines 4 to 6. Since by definition a newspaper edition does not contain all articles from back issues, it means that every displayed edition must in fact be a subset of all the articles stored in the database and selected on the basis of a "rule", namely the time of a particular edition. In an electronic system, it is implicit that this "rule" must be stored. Under this interpretation, the subject-matter of claim 1 would not be novel (Article 54(2) EPC 1973).

9. In an alternative interpretation, D10 discloses only a manual selection of articles by the newspaper editor. In particular, D10 discloses in the paragraph bridging pages 899 and 900 that data from different editorial systems is stored on a local server machine such as a simple PC. Figure 1 shows this in the form of data from "Reporters" that is fed to various black boxes connected to this PC server. In the Board's view, it is implicit that the data from the "Reporters" are articles and that in the normal course of events some subset of them would be selected by an editor according to a "selection rule" relating to bibliographic data, e.g. the type of article required in a particular edition of the newspaper, or the latest articles.

10. In this case, the only difference according to claim 1 is that a selection rule that might be of a similar kind is stored electronically. In the Board's view, the more specific problem solved is that of automating the hitherto manual task of selecting the articles for the electronic newspaper according to simple criteria like relevance and topicality. However, it is self-evident that in order to solve this problem the rule must be expressed and stored electronically and that this involves no technical difficulties. The claim does not say any more than that. In particular, neither the rule nor the implementation of how it is used are specified.

11. The appellant's main counter-argument is that the system of D10 is very rigid and only assembles all the articles of each edition of the newspaper into the document to be transmitted. However, as argued above in connection with the first interpretation, the system of D10 is flexible enough to store, but not display

articles from back issues of the newspaper. D10 also mentions the possibilities, in the abstract and at page 905, third full paragraph, of creating a personal newspaper and gives the examples of allowing a reader to manage the information and access other information providers. In the Board's view, this implies that a far less rigid system had already been envisaged for the future. In such a system, it is self-evident that there would be more possibilities and therefore would need to be rules for selecting articles.

12. In connection with the request to refer questions to the Enlarged Board of Appeal, the appellant raises the possibility of a prejudice that the selection of articles for publication must occur before conversion to electronic form and should be performed by human editors. However, the Board finds it hard to imagine that there could be any prejudice against the general idea of automating a selection process. It has to be remembered that compared with D10 it is not the whole process that is to be automated (there are already means to automate the conversion and the publication), but only the selection of the articles using an editor's "selection rule". In order to select automatically, it follows that the articles must already be converted into electronic form. Moreover, in this particular case, there is no mention or evidence of any prejudice, but simply an existing system the performance of which could be modified if desired.

13. Accordingly, in any case, the subject-matter of claim 1 of the main request lacks an inventive step (Article 56 EPC 1973) under the alternative interpretation.

First and second auxiliary requests

14. The amendments in claim 1 of the first auxiliary request are designed to make clear the difference between the roles of the administrator and the user. In particular, it specifies that the administrator is a user having privileges allowing changes to documents in the article memory means and that the user of the client computer need not register or log in to the server. However, under the above interpretations of D10, it would be a matter of normal system design that an editor who selects articles for publication would have privileges to allow changes to documents. Furthermore, D10 does not disclose that the user needs to register or log in to the server.

15. Accordingly, the subject-matter of claim 1 of the first auxiliary request lacks an inventive step (Article 56 EPC 1973).

16. Claim 1 of the second auxiliary request essentially adds to claim 1 of the main request features defining that the assembled document contains titles of, and hypertext links to, the article documents and features of an automatic update means defining that the assembled document is amended when a new article document is input.

17. D10 discloses in Figure 2 that the article documents have titles and associated hyperlinks so that these features do not add anything new.

18. Furthermore, in the Board's view it is implicit in a server application such as D10 that there is an

assembled document memory means for storing said assembled document. There must also be some means for storing the assembled document in the assembled document memory means, which can be considered to be an update means. It is true that in D10 all the articles are always retrieved in a batch every night (see paragraph bridging pages 899 and 900) and so it makes no sense to add single articles to the assembled document. However, even in the case of a batch of articles, the update means would have to operate serially on each converted article that is to be put in the electronic version and store it in the assembled document memory means. Thus the update means in D10 would also be "responsive to the input of a new article document" as claimed. In other words, the function of the claimed automatic document assembly means is not distinguished over the means that must be present for a serial conversion in D10. The precise manner of updating, namely retrieving the assembled document, amending it and storing it would be a matter of routine design.

19. Even taking the narrower interpretation of the claim as providing a system capable of adding only a single article to the assembled document, this could be considered to solve the problem of providing more up-to-date news. However, the Board considers that faced with the problem of providing more up-to-date news, the skilled person would consider responding to individual articles as an obvious desideratum in analogy, for example, with breaking news offered by television. It would be a matter of routine design to modify the means present in D10 to accept an individual article.

20. Accordingly, the subject-matter of claim 1 of the second auxiliary request lacks an inventive step (Article 56 EPC 1973).

Referral of questions to the Enlarged Board of Appeal

21. According to Article 112(1)(a) EPC 1973, a board of appeal shall, in order to ensure uniform application of the law, or if an important point of law arises, refer any question to the Enlarged Board of Appeal if it considers that a decision is required for these purposes. From this it follows that it is not sufficient for the point referred to be of general interest. An answer must also be necessary for the decision on the appeal in question (J 16/90 - Re-establishment of rights/FABRITIUS, OJ EPO 1992, 260, point 1.2 of the reasons). If the appeal must be dismissed for other reasons, a referral is not required.

22. In the present case, no effects have been excluded from the problem to be solved by virtue of being "non-technical", either for the choice of the closest prior art (now agreed to be D10), or for any modifications to the closest prior art (which solve the problems of automation - main request, or providing more up-to-date news - second auxiliary request). Thus, the above conclusions would not be affected by the answer to question a).

23. Concerning question b), as mentioned above (see point 12), the Board does not consider that the present invention overcomes any prejudice in the art, either technical or non-technical. Thus, the conclusions would not be affected by the answer to question b) either.

24. Since the outcome of the present appeal does not depend on the answers to the questions formulated by the appellant, they need not be referred.

Suspension of the proceedings

25. The appellant considers that if the fourth question referred to the Enlarged Board of Appeal in G 3/08, asking whether all features resulting from programming a computer contribute to the technical character of a claim, were to be answered in the affirmative, this could be relevant to the present case.

26. However, the reasoning in the present case does not involve any considerations about features of programming a computer or even technical character. The Board therefore concludes that the answer - whether in the positive or in the negative - to question 4 of opinion G 3/08 would not affect the outcome of the present appeal, so that the proceedings should not be suspended.

27. There being no further 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:

T. Buschek S. Steinbrener