Internal distribution code:

(A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [-] To Chairmen
(D) [X] No distribution

Datasheet for the decision of 5 October 2018

Case Number: T 1556/17 - 3.5.07

Application Number: 01943217.8

Publication Number: 1272946

IPC: G06F17/30

Language of the proceedings: EN

Title of invention:
A method and a system for retrieving data of a data network

Applicant:
Nederlandse Organisatie voor toegepast-natuurwetenschappelijk onderzoek TNO

Headword:
Web-page retrieval/TNO

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - both requests (no)

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 1556/17 - 3.5.07

D E C I S I O N
of Technical Board of Appeal 3.5.07
of 5 October 2018

Appellant: (Applicant)	Nederlandse Organisatie voor toegepast-natuurwetenschappelijk onderzoek TNO Anna van Buerenplein 1 2595 DA 's-Gravenhage (NL)
Representative:	V.O. P.O. Box 87930 2508 DH Den Haag (NL)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 8 February 2017 refusing European patent application No. 01943217.8 pursuant to Article 97(2) EPC**

Composition of the Board:

Chair	M. Blasi
Members:	R. de Man
	P. San-Bento Furtado

Summary of Facts and Submissions

I. The applicant (appellant) appealed against the decision of the Examining Division refusing European patent application No. 01943217.8, filed as the international application published as WO 01/75666.

II. The decision cited, *inter alia*, the following documents:

D1: T. Loon and V. Bhaghavan: "Alleviating the Latency and Bandwidth Problems in WWW Browsing", USENIX Symposium on Internet Technologies and Systems, December 1997, pp. 219-230; and

D3: US 5 963 964, 5 October 1999.

The Examining Division decided that the subject-matter of claim 1 of the main request was not new in view of the disclosure in document D1 and that the subject-matter of claim 1 of the auxiliary request lacked inventive step.

III. With the statement of grounds of appeal, the appellant submitted a main request and a first auxiliary request corresponding to the requests refused by the Examining Division.

IV. In a communication accompanying the summons to oral proceedings, the Board expressed the preliminary view that the subject-matter of claim 1 of the main request was not new and the subject-matter of claim 1 of the first auxiliary request lacked inventive step in view of the disclosure in document D1.

V. In its written submissions, the appellant commented on the Board's communication.

VI. Oral proceedings were held on 5 October 2018. At the end of the oral proceedings, the chair pronounced the Board's decision.

VII. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims of the main request or the first auxiliary request.

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

"A method for retrieving data of a data network (1) using a personal proxy (9,11) associated with a user, the personal proxy (9,11) being featured by a cache memory (10, 12), said network (1) being of the type from which data can be retrieved as data pages, among others multi-level data pages, from a plurality of data servers (2) and by a plurality of users, said method comprising the steps of:

- using an editable navigation tool to receive requests from the user for retrieving (26) data pages from said network (1);
- retrieving (24) data pages and data page levels stored in said personal proxy (9,11) with the aid of said navigation tool if the requested pages and data page levels are stored in said personal proxy (9,11) and retrieving the data pages from said network (1) if they are not stored in said personal proxy (9,11);

providing user editable tool for filtering a data content of a data page to be displayed, said filtering comprising pruning a tree representing a HTML structure of the data page;

- analysing (22) data pages and data page levels retrieved by a user with the aid of said navigation tool to determine the tree representing a HTML

structure of a data page and pruning the tree as defined by the tool for filtering;
- storing (26) said data pages and data page levels that have been retrieved from the network (1) in the personal proxy (9,11) associated with said user when the data pages are retrieved from said network (1);
- refreshing (27) stored data pages and data page levels in said cache memory (10, 12) by retrieving said stored data pages and data page levels from said data network (1)."

IX. Claim 1 of the first auxiliary request differs from claim 1 of the main request in that the second paragraph has been replaced with:

"- using an editable navigation tool to receive requests from the user for retrieving (26) data pages from said network (1), the navigation tool having the form of a navigation tree, comprising a first list of data categories and each data category comprises a second list of multi-level data pages, wherein said first and second list are user editable;"

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

Reasons for the Decision

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

2. In view of the age of the application, the Board decided, *ex officio*, to treat the appeal out of turn.

3. *The application*

3.1 The application relates to web browsing. The background section of the application identifies "the main top three frustrations of a user when using the Internet" as being (see page 2, lines 21 to 23, of the international publication):

- the delay or slowness in fetching pages;
- the difficulty of navigating the data network; and
- the sometimes redundant, complex and cluttered pages.

3.2 According to the background section, it was known that delays in fetching pages could be alleviated by means of caching techniques (page 2, lines 5 to 16).

3.3 The detailed description proposes providing a "personal proxy" containing a cache memory for speeding up the retrieval of frequently accessed pages (page 9, line 4, to page 11, line 15).

3.4 To address the difficulty of navigating the data network, the application proposes providing the web browser ("navigation tool") with a user-editable "navigation tree" as shown in Figure 3 (see page 11, line 16, to page 12, line 8), which essentially allows the user to configure a hierarchical menu of links to preferred web pages.

3.5 Finally, the application proposes "user editable filters" allowing the user to specify how complex or cluttered web pages are to be simplified before being displayed to the user (page 12, line 9, to page 14, line 29).

Main request

4. *The invention as defined by claim 1*

4.1 Claim 1 of the main request is directed to a method for retrieving data in the form of "data pages, among other multi-level data pages" from a data network by means of an "editable navigation tool".

Both the Examining Division and the appellant took the view that the term "editable navigation tool" encompassed a conventional web browser (see points 2.1.1.1 and 2.1.1.2 of the decision and page 2, second full paragraph, of the statement of grounds of appeal). The Board agrees that a conventional browser is a navigation tool that is "editable", for example in the sense that its "bookmarks" or "favorites" menu can be edited (see point 2.1.2.2 of the decision under appeal).

The appellant did not dispute that "data pages, among other multi-level data pages" is to be understood as encompassing known HTML web pages.

4.2 The navigation tool retrieves requested data pages from (a cache memory of) a "personal proxy associated with the user" if data pages are present in the proxy. Otherwise, it retrieves the pages from the network and stores them in (the cache memory of) the personal proxy.

4.3 Pages stored in the cache memory are (periodically) refreshed by (re-)retrieving them from the network.

4.4 A "user editable tool" is provided for filtering the content of data pages to be displayed. This operation

involves "pruning a tree representing a HTML structure of the data page". This pruning is performed "as defined by the tool for filtering".

5. *Inventive step*

5.1 Document D1 relates to web browsing, which involves retrieving HTML web pages from a data network by means of a web browser (see point 4.1 above), and is concerned with problems caused by slow and unreliable end-user network connections (see abstract). It proposes a proxy system that prefetches documents on the basis of user and group profiles and filters retrieved documents on the basis of available network quality of service (page 220, left-hand column, lines 24 to 31). Prefetching is performed "as close to the browser as possible", whereas filtering is done "as close to the server as possible" (page 220, left-hand column, lines 31 to 38).

The proxy system's architecture is illustrated in Figure 1, which shows a web server ("WWW Server"), a "Backbone proxy server", a "Local proxy server co-located with the web browser" and a web browser ("Client Browser").

5.2 When the user requests a document, the browser issues the request to the local proxy server, which passes it on to the cache manager (page 221, left-hand column, steps 1 and 4). If the cache has a fresh copy of the requested document, the request is satisfied immediately. Otherwise, the request is forwarded to the backbone proxy server, which retrieves the document from the web server by means of a normal HTTP transaction (page 221, right-hand column, steps 10 to 14; see also page 223, right-hand column, lines 29

to 38). The local proxy server hence corresponds to the "personal proxy" of claim 1 (see point 4.2 above).

5.3 To improve the efficiency of prefetching, cached pages are periodically refreshed (page 224, left-hand column, lines 6 to 12 and 28 to 34, "Hoard Walking"; see point 4.3 above).

5.4 To reduce the amount of transmitted data, HTTP requests and responses are filtered on the basis of a rules database (see abstract and page 222, left-hand column, lines 4 to 22). Filtering of responses (which include the retrieved HTML pages) is performed by the "filterd" process, which reads a configuration file indicating which scripts to run on which kinds of response (page 225, left-hand column, lines 24 to 35; page 226, left-hand column, lines 1 to 36). Each user has their own HTTP response filter (page 222, left-hand column, lines 12 and 13).

5.5 One of the examples of filtering mentioned on page 222, lines 6 to 12, is "transmitting the first few words of each paragraph in a document". In an HTML document, the beginning and end of a paragraph are marked by matching and tags (see the sample HTML document on page 13, lines 9 to 30, of the present application). Identifying the paragraphs of an HTML page thus involves an analysis of the page's HTML tree structure.

The appellant argued that this example did not disclose "filtering comprising pruning a tree representing a HTML structure of the data page". Pruning the HTML tree structure meant removing at least one node of the tree, which corresponded to removing two matching HTML tags and everything between them from the HTML document. When a paragraph in an HTML page was replaced with the

first few words of the paragraph, the matching and tags corresponding to the paragraph were not removed. The appellant also argued that transmitting the first few words of each paragraph did not disclose "the selectivity that is possible with tree pruning, wherein some branches can be retained and others can be removed".

The Board agrees that replacing a paragraph with its first few words does not remove the node corresponding to the paragraph from the HTML tree. But it does remove subnodes that correspond to HTML tags (such as tags indicating bold text, a change in font, an inline image) associated with the part of the paragraph coming after the "first few words". The operation of replacing each paragraph of an HTML page with its first few words therefore comprises pruning the HTML tree structure of the page. This type of pruning may not be "selective", as the appellant argued; but the claim does not require any selectivity.

5.6 The Examining Division argued that the use of a configuration file meant that the "filterd" process was "user editable".

The appellant argued that "user" in "user editable navigation tool" referred to the same user as the claim feature "using a personal proxy associated with a user", i.e. to the user of the browser. Document D1 disclosed HTTP response filtering as being performed in the backbone proxy, where it could not be controlled by the browser's user. It also submitted that the term "user editable" was to be understood as referring to "providing an interface in a computer program that will be available when the program is used".

The Board considers that the "filterd" process of document D1 is "editable" because its configuration file can be edited. But although nothing in document D1 rules out that the browser's user can configure their own HTML response filter by editing the configuration file, the Board does agree with the appellant that the document does not positively disclose that the user has this ability; it is at least conceivable that the user has no (write) access to that file.

5.7 In sum, the subject-matter of claim 1 differs from what is disclosed in document D1 in that the filtering tool is editable by the user.

However, since document D1 discloses that every user has their own HTTP response filter, it is obviously desirable to allow each user to configure their HTTP response filter. The skilled person, faced with the problem of implementing this desire, would have no difficulty adapting the method of document D1 accordingly, for example by giving the user remote read and write access to the configuration file or providing the user with a dedicated user interface to configure the tool. He would thereby make the filtering tool "user editable".

5.8 Hence, the subject-matter of claim 1 lacks inventive step (Article 56 EPC).

First auxiliary request

6. Claim 1 of the first auxiliary request adds the following feature to claim 1 of the main request: "the navigation tool having the form of a navigation tree, comprising a first list of data categories and each data category comprises a second list of multi-level

data pages, wherein said first and second list are user editable".

According to the description on page 11, lines 16 and 17, "the navigation tool is present in the form of a navigation tree 30, as schematically shown in Figure 3". Figure 3 shows a list of data categories including "Sports", "People" and "News". Each data category may include a list of links to web pages. For example, the "News" category may include links to the "BBC", "CNN" and "NYTIMES" home pages.

7. *Inventive step*

7.1 The appellant did not dispute that, at the priority date of the application, conventional web browsers included an editable bookmarks menu in which bookmark menu items could be arranged hierarchically. An example of such a conventional bookmarks menu is given in document D3, which describes the bookmarks facility of the "Netscape Navigator" web browser that was in common use at that time (see column 1, line 10, to column 2, line 31, and Figures 1, 4, 7 and 10). Such a hierarchical bookmarks menu, comprising a top level of bookmark categories and, within each category, a second level of web-page links (see Figure 10 of document D3), corresponds to the claimed "navigation tree".

7.2 In so far as an editable bookmarks menu is not implied by the disclosure in document D1 of a web browser, it is obvious to modify that web browser to include such a conventional menu. Indeed, the menu's addition does not lead to any unexpected technical advantages or effects in combination with the other features of claim 1.

7.3 Hence, the subject-matter of claim 1 of the first auxiliary request lacks inventive step (Article 56 EPC).

Conclusion

8. Since neither of the requests on file is allowable, the appeal is to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chair:

I. Aperribay M. Blasi

Decision electronically authenticated