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**Datasheet for the decision
of 5 October 2010**

Case Number:	T 0726/07 - 3.5.01
Application Number:	97928683.8
Publication Number:	0902926
IPC:	G06F 17/30
Language of the proceedings:	EN

Title of invention:
Internet access system and method with active link status
indicators

Applicant:
AT&T Corp.

Opponent:
-

Headword:
Link status indicators/AT&T CORP

Relevant legal provisions:
-

Relevant legal provisions (EPC 1973):
EPC Art. 56

Keyword:
"Inventive step - making indicator icon active (no)"
"Inventive step - indicating status using a colour (no)"

Decisions cited:
T 0115/85

Catchword:
-

Case Number: T 0726/07 - 3.5.01

D E C I S I O N
of the Technical Board of Appeal 3.5.01
of 5 October 2010

Appellant:
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Decision under appeal:
Decision of the Examining Division of the European Patent Office posted 17 October 2006 refusing European patent application No. 97928683.8 pursuant to Article 97(1) EPC 1973.

Composition of the Board:

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

C4280.D

Summary of Facts and Submissions

I.   This appeal is against the decision of the examining
        division to refuse the European patent application
        No. 97928683.8 on the grounds that the system for
        accessing data from a network of claim 1 of the main
        request did not involve an inventive step (Article 56
        EPC 1973) over Schilit B.N. et al.: "TeleWeb: Loosely
        connected access to the World Wide Web", Computer
        Networks and ISDN Systems, vol. 28, no. 11, May 1996,
        pages 1431-1444 (D1) and the skilled person's common
        general knowledge as exemplified by DOUGLIS F. et al.:
        "WebGUIDE: Querying and navigating changes in Web
        repositories" (D2) from the same publication as D1,
        pages 1335-1344. The auxiliary request, containing
        claim 1 amended essentially with the subject-matter of
        claims 2, 6 and 7, was not admitted into the
        proceedings.

II.   In the statement setting out the grounds of appeal, the
        appellant requested that a patent be granted on the
        basis of the main, or first to third auxiliary requests,
        essentially corresponding to requests that the
        examining division had considered. The appellant also
        requested oral proceedings.

III.   In the communication accompanying the summons to oral
        proceedings, the Board summarised the issues to be
        discussed and tended to agree with the examining
        division that the subject-matter of claim 1 of all
        requests lacked an inventive step.

IV.   In a reply, the appellant filed a fourth and fifth
        auxiliary request containing relatively minor

amendments and clarifications and provided further
arguments on patentability.

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 main request or
        auxiliary requests 1 to 3, filed with the statement
        setting out the grounds of appeal dated 23 February
        2007, or auxiliary requests 4 or 5 filed with the
        letter dated 6 September 2010. At the end of the oral
        proceedings, the Chairman announced the decision.

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

        "A system (100) for accessing data from a distributive
        information network (500), comprising:
            a processor (200) that receives data from the
        distributive information network (500);
            a memory (300) that stores the data received from
        the distributive information network (500); and
            a display (400) that displays the data, at least
        one link (420) corresponding to other data accessible
        from the distributive information network (500), and at
        least one link status indicator (430) associated with
        but distinct from each at least one link (420), a
        visual characteristic (440, 450, 460) of each link
        status indicator (430) conveying information regarding
        whether the other data corresponding to its associated
        link (420) is stored in the memory (300), the processor
        (200) responding to a selection of at least one link
        status indicator (430) by retrieving, when the other
        data is not already stored in the memory (300), the
        other data associated with its associated link (420)
        from the distributive information network (500) and

storing the other data in the memory (300) without displaying the other data an [*sic*] the display (400)."

Claim 1 of the first auxiliary request adds to the end of claim 1 of the main request the feature:

"   wherein, for each at least one link (420), when the corresponding other data is stored in the memory (300), the visual characteristic (440, 450, 460) of one associated link status indicator (430) indicates whether an updated version of the corresponding other data is available for retrieval from the distributive information network (500)".

Claim 1 of the second auxiliary request adds to the end of claim 1 of the first auxiliary request the feature:

"   wherein, for each at least one link (420), the visual characteristic (440, 450, 460) of one associated link status indicator (430) indicates whether fetching the corresponding other data from the distributive information network (500) will exceed a predetermined budget threshold".

Claim 1 of the third auxiliary request reads as follows:

"A system (100) for accessing data from a distributive information network (500), comprising:
     a processor (200) that receives data from the distributive information network (500);
     a memory (300) that stores the data received from the distributive information network (500); and
     a display (400) that displays the data, at least one link (420) corresponding to other data accessible

from the distributive information network (500), and a
first and a second link status indicator (430, 460)
associated with but distinct from each at least one
link (420), a visual characteristic (440, 450) of each
first link status indicator (430) conveying information
regarding whether the other data corresponding to its
associated link (420) is stored in the memory (300),
and a visual characteristic of each second link status
indicator (460) indicating that the fetching of the
other data corresponding to its associated link (420)
may exceed a predetermined cost budget, the processor
(200) responding to a selection of the first link
status indicator (430) by retrieving, when the other
data is not already stored in the memory (300), the
other data associated with its associated link (420)
from the distributive information network (500) and
storing the other data in the memory (300) without
displaying the other data an [*sic*] the display (400),
wherein, for each at least one link (420), when the
corresponding other data is stored in the memory (300),
the visual characteristic (440, 450) of one associated
first link status indicator (430) also indicates
whether an updated version of the corresponding other
data is available for retrieval from the distributive
information network (500), and
wherein, for each at least one link (420), the first
and second link status indicator (430, 460) is
displayed adjacent to that link (420)."

Claim 1 of the fourth auxiliary request adds to the end
of claim 1 of the main request the two features:

"   wherein, for each at least one link (420), the
visual characteristics (440, 450, 460) of one

associated link status indicator (430) indicate whether
the corresponding other data is stored in the memory
(300), and

        wherein the one associated link status indicator
(430) is a first color (440) when the corresponding
other data is not stored in the memory (300) and a
second color (450) when the corresponding other data is
stored in the memory (300)".

Claim 1 of the fifth auxiliary request adds to the end
of the third feature of claim 1 of the fourth auxiliary
request (identical with the third feature of claim 1 of
the main request) the condition "while viewing
documents that have already been cached".

VII.   The appellant argued essentially as follows:

Dl disclosed that the items that were cached were
always for web pages that the user was attempting to
access. In stark contrast, the present invention
allowed a user to view a web page and cache other web
pages in the background without displaying the
requested web pages. In other words, although Dl may
have disclosed caching without displaying due to costs
or no connection to the network, Dl did not disclose
caching while viewing a different web page. As a matter
of fact, if the system in Dl had been connected and the
cost was within budget, the requested link would have
been provided to the user.

If the cost were not within budget, Dl disclosed that
separate screens (e.g. "conditional action form")
appeared to determine if the data associated with the
link should be cached. As a result, each time a user in

Dl attempted to download a web page into a cache, the requests brought up a different screen or webpage. This required the user to go back to the previous web page to select another web page or link. This was clearly less efficient than the present invention.

Although active icons may have been known *per se* in the art, the use of active icons to cache data associated with a particular link in the background without actually sending the user to the URL of the link was inventive.

Using various colours for the link status indicator provided a user with important information about each link on a web browser quickly and in a streamlined fashion. In stark contrast, Dl failed to describe or suggest that any icon could change status. Rather, Dl only described the use of icons that warned if a link would incur further charges or require further downloads. The fact that Dl disclosed that arbitrary HTML may be inserted before, after or around anchors did not disclose that the icon could change status.

Reasons for the Decision

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

The application

2.   The application concerns the problem of indicating the status of documents downloaded from the Internet in a Web browser. The application explains that a downloaded

document is normally stored in local memory (cache) as well as being displayed. If the user selects the same page again, the document is retrieved from the cache, thereby saving the time and cost of accessing the Internet again (see page 1, lines 12 to 33 of the published application). However, standard Web browsers do not indicate whether a document is in the cache or offer any control over putting individual documents in the cache.

3.   The application goes on to acknowledge that D1 mitigates these problems by displaying an icon next to links to documents that have not been cached. The application states that in D1 however, the icons next to the links are not active and do not help the user to load documents into the cache. Also, D1 does not provide any mechanism for loading documents into the cache other than by fetching and displaying the documents in the usual fashion.

4.   The invention (Figure 2) adds icons similar to those in D1, called link status indicators 430, to the links to documents 420. The indicators are white 440 if the associated document is not in the cache and green 450 if it is (page 6, lines 1 to 8). If the user clicks on a white icon, the document is fetched and stored in the cache *without displaying the content* ("pre-fetching") and the button changes to green (page 6, lines 9 to 15). This allows a user to view one document while downloading others (page 4, lines 1 and 2).

5.   In one embodiment, the link status indicator is set to yellow if the document in the cache is not the latest version (page 6, line 31 to page 7, line 4). In another

embodiment, the link status indicator can be used to warn the user that fetching the document will exceed a predetermined cost budget (page 7, lines 5 to 10).

Main request

6.   The examining division found at the end of page 4 of the decision that the subject-matter of claim 1 differed from D1 only in that each of the link status indicators (warning icons in D1) could be selected to retrieve (in the sense of a "pre-fetch" they considered to be disclosed in D1) the data associated with the link. The problem was seen as how to implement the pre-fetching since D1 did not specify any implementation. They considered that, since active buttons were well known in the art, the skilled person would consider using the warning icons as such buttons to initiate the pre-fetch operation. The Board essentially agrees with this conclusion, but considers that D1 merits some further comments to put its disclosure in the correct context in the light of the appellant's arguments.

7.   In appeal, the appellant has four main arguments. Firstly, D1 does not disclose that the warning icons indicate that data associated with the link is not in the cache. This argument was not pursued at the oral proceedings. Secondly, D1 does not disclose pre-fetching documents without displaying them. Thirdly, it is not obvious to initiate the download by clicking on the icons. Fourthly, D1 describes a download that requires additional user intervention via forms on separate screens, which is not necessary with the invention. The last argument is discussed in connection with the fifth auxiliary request.

8.   D1 describes a "scenario" comprising the four stages in
      the bullet points on page 1432 in which "Jack" wants to
      download various documents for a presentation, but is
      worried about the cost. The scenario starts as he
      chooses documents that he would like to download from
      his "hot-list", but he does not have enough time to
      complete the download. It continues in the airport
      lounge where the communication cost is higher, then on
      the airplane and ends in his hotel room.

9.   Concerning the warning icons, which the examining
      division equated with the link status indicators, they
      are those that appear for the first time on Jack's
      laptop at the airport. The examining division referred
      to the whole bullet point which reads as follows:

            In the airport lounge Jack turns on his wireless
            CDPD modem and starts browsing the Web, organizing
            the material for his presentation. Customers of
            this wireless service are charged per-byte, so as
            long as Jack mainly references cached resources
            the session will not be too expensive. He glances
            at the list of pending downloads initiated in his
            office and notes (with relief) that none are
            active. This is due to the current high cost of
            communication. Jack also notes that his current
            use of the system over CDPD has caused a slight
            change in behaviour and appearance of his browser.
            The warning icons that Jack now sees in front of
            some hypertext anchors mark those links that
            require data transmission to follow because their
            resources are missing from his laptop's cache.

In the Board's view, the use of the word "now" in the last sentence of this passage in connection with the warning icons relates to the change in browser behaviour and appearance mentioned in the previous sentence. This means that the warning icons apply, at least, to all the links to missing resources on a page being viewed. This is then equivalent to the "caching proxy" feature described in more detail in the implementation of the system on page 1440 and shown in Figure 3. Thus, the Board agrees with the examining division at point III (1) on page 8 of the decision that D1 discloses that the "warning icons" indicate that data associated with the link is not in the cache.

10.   Concerning pre-fetching documents without displaying them, the Board agrees with the examining division that D1 explicitly discloses this at page 1433, left-hand column, lines 4 to 7 when it states that in order for Jack to be able to work according to the "scenario", "his laptop clearly must have a cache of information that can be pre-loaded". It appears from the examining division's arguments at points (2) and (3) on page 8 of the decision that they considered that the documents to be pre-fetched were those that Jack had selected in his office. However, these are documents selected from his "hot-list" and are not explicitly disclosed as having a warning icon like those associated with the links on a webpage. Thus, the Board prefers to equate a document to be pre-fetched with that associated with the link that Jack tries to follow in his Web browser in the airplane stage of the "scenario" that is said not to be available as the system is disconnected. D1 states that Jack can connect to the in-flight telephone, but instead he "adds it to the queue of pending downloads".

These are the downloads that "complete in the background" at the final stage at the hotel.

11.   In this way, the Board considers that D1 discloses the concept of status indicators (warning icons) next to links showing whether the associated document is in the cache in combination with the possibility of pre-fetching these documents in the sense of claim 1. Thus, the Board is of the view that the invention of claim 1 of the main request differs from D1 exactly as stated by the examining division, namely that the status indicators can be selected to start the pre-fetching for each associated link. As mentioned above, the application gives the effect of this as allowing a user to view one document while downloading others. However, this is simply the effect of the pre-fetching, which is already disclosed in D1, so that a problem based on this effect would be too general. Since D1 does not disclose, in the "scenario" at least, how this is implemented, the Board considers that the problem is that essentially given by the examining division, namely how to implement the pre-fetching.

12.   In the Board's view the idea of using a particular button to do this does not have any technical effect since it is one of the choices in a design specification and not a technical implementation. Moreover, the Board again agrees with the examining division that the actual implementation, namely using active buttons was very well known in the art. The examining division cited D2 to show this but, in the Board's opinion no document is even necessary to appreciate that it was a matter of common knowledge to use e.g. the "ONCLICK" attribute of an anchor tag to

specify an action to be performed when an element, such
as an image or text, is clicked. In the Board's view,
D1 leaves the way open for such possibilities when it
states at page 1441, column 1, lines 6 to 8, that users
can insert "arbitrary HTML before, after, or around
anchors", e.g. an "ONCLICK" action.

13.   The Board notes that, apart from the general processing
         shown in Figure 3, the description does not actually
         explain how the present invention is implemented. In
         particular, how the system detects whether a status
         indicator has been selected, or how it determines
         whether a document is in the cache or how it stores a
         document in the cache. If the skilled person can carry
         out the invention as required by Article 83 EPC, this
         tends to support the view that the implementation must
         indeed be obvious.

14.   Accordingly, the Board judges that claim 1 of the main
         request does not involve an inventive step (Article 56
         EPC 1973).

         Auxiliary requests

15.   Claim 1 of the first auxiliary request adds essentially
         that the link status indicator shows whether an updated
         version of the data is available for retrieval. The
         Board agrees with the examining division at the end of
         point 2.3 of the decision that since D1 discloses, at
         page 1433, section 2.1, paragraph 2, the possibility of
         not retrieving a document as a result of the trade-off
         between cost and consistency (degree to which it is up-
         to-date), it would be obvious to present version
         information to the user. The appellant argues that the

combination of the claimed features provides a synergy
in that it allows a flexible selection of data and a
trade-off of consistency and costs. In the Board's view,
it may appear that there is some kind of synergy
because the distinguishing features, namely the
implementation of the pre-fetch function and the
indication of updated versions of data both involve the
same icon. However the Board considers that the *effects*
of these features, namely the flexible selection of
data and the trade-off of consistency and costs are in
different parts of the system and do not in fact have
any synergy.

16.   Claim 1 of the second auxiliary request further adds
       essentially that the link status indicator also shows
       whether fetching the data will exceed a predetermined
       budget threshold. Again, the Board agrees with the
       examining division's comments, at the top of page 10 of
       the decision, that D1 discloses this feature at
       page 1432, column 2, lines 27 to 40: "The TeleWeb
       architecture presents cost information to users…".
       There is thus no need to decide to what extent this
       feature contributes to the technical character of the
       invention.

17.   Claim 1 of the third auxiliary request essentially
       defines two link status indicators with a specific
       combination of the properties mentioned in the previous
       requests. Thus the first indicator shows whether data
       is or is not in the cache, or whether the updated
       version is available, and the second indicator shows
       whether fetching the data may exceed the predetermined
       budget threshold. Since this claim essentially contains
       the technical features discussed in connection with the

previous requests, the claim only adds the idea of
using separate indicators. However, the Board considers
that this is simply a matter of design that does not
contribute to inventive step.

18.   Claim 1 of the fourth auxiliary request adds to claim 1
of the main request the features that the link status
indicator indicates whether the data is in the cache
and using a different colour if it is. The first
feature is a repetition of what is already claimed in
claim 1 and thus adds nothing new. The second is
essentially the use of a colour to represent a state of
the cache. Even assuming that this could be considered
as representing "conditions prevailing in an apparatus"
in the sense of T 115/85 - Computer-related
invention/IBM (OJ EPO 1990,30), the Board considers
that the use of a colour is a common and obvious
implementation of a status indication.

19.   Claim 1 of the fifth auxiliary request adds the feature
"while viewing documents that have already been cached".
At the oral proceedings the representative explained
more fully that the purpose of this amendment was to
distinguish the claim from the way in which the
uncached data was downloaded in D1. According to D1
starting at the bottom of page 1437, if an uncached
link is clicked and the cost to retrieve it is too high,
the system presents the user with a form like the one
shown in Figure 2. The user can either postpone the
download or click on "OVERRIDE" to download it anyway.
The alleged difference is that in the invention, when
the user clicks on the link status indicator to get the
data, not only is it not displayed when it arrives, but
the user can continue to view documents that have

already been cached (and is not bothered with such a form). However, the appellant's amendment, which relates to viewing documents does not reflect this distinction, which relates to the manner in which they are, or rather are not, selected. In D1 Jack can also continue to work after queuing downloads, which complete "in the background".

20.   The appellant also argued that this difference would at least teach away from the claimed solution of clicking on the icon to download a document by requiring a user intervention in the manner of D1 when selecting links. However, the Board considers that a user intervention based on cost may or may not be required, but this is separate from the decision of how to initiate the download, which as mentioned above the Board considers to be obvious.

21.   Accordingly, the subject-matter of claim 1 of all requests does not involve an inventive step (Article 56 EPC 1973), so that 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. Wibergh