Paper No. 32

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte GEORGE FRANCIS DESTEFANO

Appeal No. 2002-1971
Application 09/020,668[1]

ON BRIEF

Before JERRY SMITH, BARRETT, and RUGGIERO, Administrative Patent Judges.

BARRETT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from the rejection of claims 15-18, 20, 65, and 83-95. Claims 1-14, 19, 21-64, and 66-82 have been canceled.

We reverse.

[1] Application for patent filed February 9, 1998, entitled "Three-Dimensional Model to Facilitate User Comprehension and Management of Information."

BACKGROUND

The invention relates to methods for accessing information from a body of knowledge as concisely described by appellant in the Summary of the Invention (brief, pp. 2-7).

Claim 15 is reproduced below.[2]

> 15. A method of accessing selected information from a body of knowledge stored in a computer system, the body of knowledge stratified into a plurality of levels of abstraction, the method comprising:
>
> (a) concurrently displaying first and second information elements in first and second lenses on a computer display, respectively, the first and second information elements respectively associated with first and second levels of abstraction in the body of knowledge;
>
> (b) visually linking the first and second information elements displayed on the computer display in a three dimensional workspace to represent a hierarchical arrangement of the first and second levels of abstraction, wherein visually linking the first and second information elements includes orienting the first and second lenses along an abstraction axis, the abstraction axis oriented generally perpendicular to the first and second lenses;
>
> (c) applying a first filter criteria associated with the first lens to the plurality of information elements to generate a first set of filtered information elements:
>
> (d) applying a second filter criteria associated with the second lens to the plurality of information elements to generate a second set of filtered information elements;

[2] There is no antecedent basis for "the plurality of information elements" in steps (c) and (d). Only first and second information elements are recited in steps (a) and (b).

(e) displaying the first set of filtered information elements in the first lens; and

(f) displaying the second set of filtered information elements in the second lens.

The examiner relies on the following references:

Rowe et al. (Rowe)	5,819,301	October 6, 1998
Lucas et al. (Lucas)	6,012,072	January 4, 2000 (filed January 5, 1996)

Acrobat Reader 3.0 screen capture, Adobe, pp. 1-3, 1996.

WordPerfect 6.1 screen capture, Corel, Fig. 1 and p. 1, April 15, 1996.

Claims 15-17 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Lucas.

Claims 65, 83-88, 90, 91, 93, and 95 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lucas.

Claims 18, 20, 89, and 94 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lucas, Rowe, and Acrobat Reader.

Claim 92 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lucas and WordPerfect.

We refer to the non-final rejection (Paper No. 28) (pages referred to as "R__") and the examiner's answer (Paper No. 30) (pages referred to as "EA__") for a statement of the examiner's rejection, and to the supplemental appeal brief (Paper No. 29) (pages referred to as "Br__") for a statement of appellant's arguments thereagainst.

OPINION

Grouping of claims

Appellant identifies the following grouping of claims, with the individual claims within each claim grouping standing or falling together (Br8).

Group A(1): claims 15 and 16
Group A(2): claim 17
Group B(1): claims 65, 83, 86, 93, and 95
Group B(2): claims 84, 87, 88, and 90
Group B(3): claims 85 and 91
Group C(1): claim 18
Group C(2): claim 20
Group C(3): claims 89 and 94
Group D: claim 92

Group A(1): claims 15 and 16

Claim 15 is directed to the method of accessing information from a body of knowledge using first and second lenses displaying first and second information elements, where different filter criteria are associated with the first and second lenses (see description at Br2-4). By associating different filter criteria with different lenses, different views of the body of knowledge can be concurrently presented to a reader.

The examiner finds that Lucas teaches a three-dimensional workspace as recited in the preamble, concurrently displaying first and second information elements in first and second lenses as recited in paragraph (a), and visually linking the first and second information elements by orienting the first and second lenses along an abstraction axis as recited in paragraph (b),

referring to column 4, lines 6-53, and Figs. 1 and 3 (R3; EA4). The examiner finds that the steps of applying first and second filter criteria as recited in paragraphs (c) and (d), and the steps of displaying of paragraphs (e) and (f), are met by the "find tool" which displays previously read e-mail messages in the background, which the examiner considers a first lens, and unread e-mail messages in the foreground, which the examiner considers a second lens (R3-4; EA4).

Initially, appellant argues that it is unclear from the examiner's rejection what elements correspond to the "information elements" and what correspond to the "lenses" (Br10). Appellant argues that if the examiner's position is that the documents in Lucas correspond to information elements, and that the find function that separates a strand into sub-strands is the filter function, Fig. 9 of Lucas does not disclose first and second lenses, where first and second filter criteria are applied to the information elements for displaying different filtered sets of information in each of those lenses (Br10). It is argued that it appears that all of the documents, including those in each sub-strand defined by a find tool are displayed in the same window or lens (Br10).

The examiner responds that "lenses" or windows in Lucas contain "information elements" or data (EA11). The examiner refers to documents 100a to 100e in Fig. 9 as "windows" (EA11).

We agree with appellant that the rejection (Paper No. 28) does not clearly specify how the claimed "lenses" and "information elements" correspond to elements in Lucas. It was therefore reasonable for appellant to guess that the examiner interpreted the "information elements" to correspond to the document representations (e.g., 19a to 19e in Fig. 1 or 100a to 100e in Fig. 9) and the "lens" to correspond to the window in which the documents are displayed (e.g., the window in Figs. 1 & 2). Documents 100a to 100e in Fig. 9 are screen objects which are visual representations of documents and are not "windows," as stated by the examiner, in the usual sense of scrollable viewing areas on the screen. The specification states that "[l]enses are much like windows in common GUI environments, insofar as they provide a window into a portion of the information in a body of knowledge" (specification, p. 29). Nevertheless, we will use the examiner's interpretation of document objects 100a to 100e in Fig. 9 as "lenses" showing "information elements." These "lenses" are oriented perpendicular to a strand path, which the examiner considers to be the "abstraction axis." Thus, according to the examiner's interpretation, Fig. 9 shows five lenses (100a to 100e), one for each information element.

Appellant argues that if the examiner takes the alternate position that the documents in Lucas correspond to lenses, the find function does not affect what is displayed within each

document, only what documents are displayed (Br11). It is argued that Lucas does not disclose applying filter criteria to two lenses that control what information is displayed within each lens (Br11).

The examiner does not respond to this argument. The rejection states that the "find tool" is a "filter" which arranges e-mail messages which have been previously read in the background (to the right of knot 104 in Fig. 9), which the examiner considers to be the "first lens," and e-mail messages which have not been read in the foreground (to the left of knot 104 in Fig. 9), which the examiner considers to be the "second lens" (EA4-5; EA11). There are several problems with this interpretation. First, the examiner's interpretation of the foreground and background, areas of the display to the left or right of a knot and containing several documents, as lenses is inconsistent with the previous interpretation of the document objects themselves as lenses. Second, as noted by appellant, the find tool does not affect what is displayed within document objects (assuming the document objects are the lenses), as required by generating and displaying first and second filtered information elements in paragraphs (c)-(f). Third, the find tool applies to all the documents; there is no first filter criteria applied to information elements in a first lens and a second filter criteria applied to information elements in a second lens.

For these reasons, we find that the examiner has failed to establish a prima facie case of anticipation. The rejection of claims 15 and 16 is reversed.

It also appears that Lucas is missing more limitations than the application of different filter criteria to a plurality of information elements, and the resulting display of different sets of filtered information elements in different lenses. For example, the examiner does not explain how the e-mails in Lucas represent a "body of knowledge stratified into a plurality of levels of abstraction" and have "first and second levels of abstraction" and "a hierarchical arrangement of the first and second levels of abstraction." The specification describes that "[a] level of abstraction typically relates to a particular manner of looking at a given collection of information, also referred to as a body of knowledge" (specification, p. 2). The e-mails may be completely independent of one another and not represent a level of abstraction. The examiner refers to a "3D display of document levels" (EA3), but does not explain how a "level," which is just the location of a document in a pile, is a "level of abstraction." While the examiner has found a three dimensional workspace with objects arranged generally perpendicular to the strand, these other limitations have not been addressed. Nevertheless, we address only the arguments actually presented by appellant.

Group A(2): claim 17

The anticipation rejection of claim 17 falls with the rejection of claim 15. The rejection of claim 17 is reversed.

Group B(1): claims 65, 83, 86, 93, and 95

Claim 65 is directed to the method of authoring using an authoring tool such as tool 600 in Fig. 40 (see description at Br6-7). The authoring tool may include multiple lenses (e.g., lenses 620, 622, and 624) that function as "user input elements" through which a user (author) inputs information associated with different levels of abstraction; first and second lenses are claimed. Specific levels of abstraction may be associated with different lenses, so that upon input of a new information element into a lens by a user, that information element is automatically associated with the particular level of abstraction associated with that lens.

Appellant argues that Lucas does not disclose the input of information into a user input element displayed in a three dimensional workspace (Br13). These limitations are found in paragraphs (a), (b), and (c) of claim 65.

Claim 65 recites, in part, "(a) concurrently presenting a user with first and second user input elements, the first and second user input elements respectively associated with first and second levels of abstraction, and the first and second user input elements positioned within a three dimensional workspace to

represent a hierarchical arrangement between the first and second levels of abstraction."

The examiner finds that Lucas discloses a three-dimensional workspace at column 4, lines 5-52 (R6; EA6). The examiner finds that Lucas discloses maintaining the relative positioning of a first information element, a document in the foreground of Fig. 1, and a second information element, a document in the background, in a three-dimensional workspace "based on the hierarchical arrangement of document abstraction levels in various 3D shapes" (R6; EA6).

This statement does not specifically identify what the examiner considers to be the "the first and second user input elements positioned within a three dimensional workspace." Limitation (a) requires more than a three-dimensional workspace.

Claim 65 recites, in part, "(b) receiving a first information element as user input to the first user input element; (c) receiving a second information element as user input to the second user input element."

The examiner acknowledges that Lucas does not disclose these limitations, but concludes that they would have been obvious because Lucas teaches that "[a]ny paper document can be entered into the system by scanning" (col. 3, lines 53-54) (R6; EA7).

Appellant argues that this portion of Lucas does not suggest receiving user input directed to first and second user input

elements presented to the user in a three-dimensional workspace (Br13). It is argued that Lucas deals only with the display of documents within a three-dimensional workspace only after the documents are inputted into the computer through other means, such as scanning, and there is no teaching of the ability to manipulate the content of any document via the three dimensional workspace, much less receiving user input via user input elements displayed in such a workspace (Br14).

The examiner responds by essentially repeating the reasoning of the rejection (EA12). This is not persuasive since it does not answer appellant's arguments. There is no dispute that Lucas shows a three dimensional workspace. However, the examiner does not identify "the first and second user input elements positioned within a three dimensional workspace." Documents, such as 19a to 19e in Fig. 1 or 100a to 100e in Fig. 9, are screen objects that are visual representations of documents--they do not allow input of information. While the parent screen object 17, the find tool, in Fig. 1 allows input of information, it is questionable whether it is in the three-dimensional workspace because it is not on the three-dimensional strand. In any case, two user input elements are recited and the examiner does not rely on the find tool. Claim 65 recites that information is received as user input to the user input elements, where the user elements are positioned within a three dimensional workspace. The input of

documents by scanning does not meet these limitations because the scanning is not user input to an input element in the three-dimensional workspace. We conclude that the examiner has failed to establish a prima facie case of obviousness. The rejection of claims 65, 83, 86, 93, and 95 is reversed.

Group B(2): claims 84, 87, 88, and 90
Group B(3): claims 85 and 91

The rejection of claims 84, 85, 87, 88, 90, and 91 falls with the rejection of parent independent claim 65. The rejection of claims 84, 85, 87, 88, 90, and 91 is reversed.

Group C(1): claim 18

Claim 18 is directed to the method including coordinated scrolling between two lenses to display the same location in a body of knowledge, so that multiple representations of that location can be concurrently displayed to a reader (see description at Br5-6; Figs. 23 and 24).

The examiner finds that the preamble and paragraphs (a) and (b) are the same as claim 15 and are rejected for the same reason (R8; EA9). The examiner finds that Lucas fails to disclose the limitations of claim 18 in the last paragraph beginning at "wherein." The examiner finds that Rowe and Acrobat Reader teach selection of an icon in one window to display a page in a second window and concludes that it would have been obvious to combine

the teachings of Lucas with Rowe and Acrobat Reader because Rowe teaches the random access of document pages (R9; EA10).

Appellant argues that neither Rowe nor Acrobat Reader discloses the display of actual content within the "icons" or "thumbnails" and, thus, neither reference suggests the coordinated manipulation of one lens that displays information elements in response to another lens that also displays information elements (Br16). It is also argued that Lucas does not suggest that the display of information in one lens can be controlled by manipulation of another lens (Br16). It is argued that the documents in Lucas have very little, if any, relationship with one another and manipulation of one document would likely have little meaning in the context of what other documents are displayed (Br17). Appellant argues that even if the references did individually suggest each recited feature of claim 18, there is no suggestion of combining the references as suggested by the examiner (Br16).

The examiner responds that "Rowe teaches display of a first window or lens displaying icons with miniaturized display of content corresponding to the content of a document located in a second window .... Acrobat Reader teaches the selection of the content of the miniaturized document icon or lens, and displaying the same location in a magnified manner, in a second window ..." (EA13). The examiner concludes that this would have suggested

combining the teachings "to display the system of Lucas in the second window of Rowe or Acrobat to allow the display of a selected area of the document icons of the first window, because Rowe teaches above the random access of document pages using the miniaturized document icons" (EA13).

Rowe and Acrobat Reader are relied on for the same feature: a "thumbnails" window 48 contains icons 50 each of which represents a separate page in the viewed portable electronic document (Rowe, Fig. 2b; col. 12, lines 29-32). The user may select an icon to display the corresponding page in the view window 39 (Rowe, col. 12, lines 32-34). The currently-displayed page may have a highlighted label (Rowe, col. 12, lines 34-36), which is not visible in Fig. 2b of Rowe, but which is shown in Acrobat Reader. As noted by appellant, the icons in Rowe and Adobe Reader do not show any content. Although we know from our own personal experience with Adobe Reader that the icons show miniature versions of the page (which are not readable, for example, a line of text on the page being represented by a line in the icon), this is not actually shown or described in the references. Thus, the examiner errs in stating that the icons contain a miniaturized display of content. In any case, we do not understand how the examiner proposes to modify Lucas in view of Rowe and Acrobat Reader to arrive at the claimed invention. The examiner considers the thumbnails windows 48 in Fig. 2b of

Rowe to be a first lens and the view window 39 to be a second lens, and that selection of an icon in window 48 causes the content of that page to appear in the window 39. From the discussion of claim 15, the examiner finds the first and second lenses in Lucas to correspond to two of the documents. There are several problems. First, it is not apparent how or why the references would be combined. Is the examiner's proposal to put the display of documents from Fig. 9 of Lucas into the icon window? If so, why? Second, if the combination has two windows as shown in Rowe and Acrobat Reader, the windows corresponding to lenses, why would the lenses be oriented in a three-dimensional workspace along an abstraction axis? As with claim 15, we find there are other limitations that are not addressed in the rejection, but we have only considered the arguments actually presented. We conclude that the examiner has failed to establish a prima facie case of obviousness. The rejection of claim 18 is reversed.

Group C(2): claim 20

Claim 20 is directed to a method of accessing information from a body of knowledge including "concept highlighting," where information elements that pertain to the same basic concept, but defined at different levels of abstraction, may be linked together and noted to a reader (see description at Br5; Fig. 29). When one linked information element displayed in one lens is

selected by a user (e.g., by a mouse over event), the linked information in the other lens is highlighted to represent the association of the information elements with the same concept.

Claim 20 recites "concurrently displaying first and second information elements in first and second lenses on a computer display, respectively, the first and second information elements respectively associated with first and second levels of abstraction in the body of knowledge, and the first and second information elements associated with a common concept in the body of knowledge" (emphasis added) and "wherein visually linking the first and second information elements includes highlighting the first information element displayed in the first lens in response to user selection of the second information element in the second lens" (emphasis added).

The examiner states that "[c]laims 20, 89, and 94 are directed towards a method for implementing the steps found in claim 18, and therefore are similarly rejected" (R9; EA10).

Appellant argues that this was the examiner's sole basis for rejecting these claims and indicates that the examiner has failed to consider the patentability of each of the claims (Br17). It is argued that Lucas does not teach highlighting the display of information elements in one lens in response to user selection of related information in another lens when such information elements are associated with a common concept (Br18). It is

argued that there is no evidence asserted by the examiner as to the motivation to combine the references (Br18).

The examiner responds with the same reasoning as applied to claim 18 (EA13).

The rejection does not address the limitations of "the first and second information elements associated with a common concept in the body of knowledge" and "highlighting the first information element displayed in the first lens in response to the user selection of the second information element in the second lens." The examiner has failed to establish a prima facie case of obviousness. We do not see how the limitations can be met by the references. The rejection of claim 20 is reversed.

Group C(3): claims 89 and 94

Rowe and Acrobat Reader do not cure the deficiencies of Lucas with respect to the rejection of claim 65. Accordingly, the rejection of claims 89 and 94 is reversed.

Group D: claim 92

WordPerfect does not cure the deficiencies of Lucas with respect to the rejection of claim 65. Accordingly, the rejection of claim 92 is reversed.

CONCLUSION

The rejections of claims 15-18, 20, 65, and 83-95 are reversed.

REVERSED

JERRY SMITH Administrative Patent Judge	)	
LEE E. BARRETT Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
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