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**Datasheet for the decision  
of 4 December 2012**

**Case Number:** T 1577/07 - 3.5.01

**Application Number:** 01303788.2

**Publication Number:** 1150218

**IPC:** G06F17/30, G06F3/023

**Language of the proceedings:** EN

**Title of invention:**

Display control

**Applicant:**

Sony Corporation

**Headword:**

Multiple cursors/SONY

**Relevant legal provisions:**

EPC 1973 Art. 56

**Keyword:**

Inventive step - selecting link based on majority decision of selections from multiple users (no - not technical and obvious)

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**  
**Boards of Appeal**  
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Case Number: T 1577/07 - 3.5.01

**D E C I S I O N**  
**of the Technical Board of Appeal 3.5.01**  
**of 4 December 2012**

**Appellant:**  
(Applicant)

Sony Corporation  
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**Representative:**

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**Decision under appeal:**

**Decision of the Examining Division of the  
European Patent Office posted 13 April 2007  
refusing European patent application No.  
01303788.2 pursuant to Article 97(1) EPC 1973.**

**Composition of the Board:**

**Chairman:** W. Chandler  
**Members:** K. Bumes  
D. Prietzel-Funk

## Summary of Facts and Submissions

I. This appeal is against the decision of the examining division to refuse the European patent application No. 01303788.2. It concerns a display control apparatus that allows multiple users to use respective cursors at the same time.

II. The examining division decided that claim 1 of all requests did not involve an inventive step (Article 56 EPC 1973).

III. Claim 1 of the main request read as follows:

"A display control apparatus for controlling display of information, the apparatus comprising:

a display control means for displaying, on a display device (24), a cursor (Cur-1) movable by a user and link parts (a-d) to items of information;

a selecting means (12) for selecting one of said items of information based on a link part designated by said cursor displayed on said display device; and

an acquisition means (12) for acquiring said item of information selected by said selecting means;

characterised in that:

said display control means (12) is operative to display, on said display device (24), a plurality of cursors (Cur-1 ... Cur-n) movable by respective plural users and to permit each cursor to be settled on one of the link parts (a-d) to an item of information that is desired by the user of that cursor; and

said selecting means (12) is operative to select one of said items of information based on all of the links selected by the settled cursors, thereby to decide which item of information to access next taking account of competition among the users."

Claim 1 of the first auxiliary request added to the end of the first characterising feature "said display control means (12) being further operative to display a position settled cursor with a different shape or color from a cursor before position settlement in order for users to recognize the position settlement of cursors operated by other users".

Claim 1 of the second auxiliary request specified that the selection in the last feature of claim 1 of the main request was "based on a majority decision among the link parts selected by all of the settled cursors".

Claim 1 of the third auxiliary request combined the additional features of the first and second auxiliary requests.

IV. The division argued:

2.1. Document D1 is considered to be the closest prior art, since D1 discloses a system of computers having graphical user interface (GUI) (see column 1, lines 8 to 12), where an application, whatever the type of the application (see column 1, lines 51 to 52), is shared between several users, and solves the problem of the conflicts between input of information by multiple users at the same time, e.g. simultaneous mouse clicks (see column 1, lines 49 to 57, column 3, line 58 to column 4, line 9).

In the system of D1, several computers (12) within a network (10) display a shared application window (14, 14', 14'') comprising GUI items (see e.g. buttons in shared application windows 14, 14', 14', see figure 1 and 2 and column 5, lines 10 to

16). Each user can move its own cursor, which is represented in a distinct manner (see column 5, lines 48 to 53).

The system of D1 receives and registers the input of each user to the shared application. An input consists in e.g. a click of the user with his corresponding cursor on a GUI item of the application (see column 1, line 35 to 37 and column 10, lines 13 to 18), which in view of the description of the present application (see page 13, lines 3 to 5), corresponds to a settlement operation....

2.2. The subject matter of independent [claim 1] differs from the teaching of D1 only in that:

(i) The clickable and activatable GUI items are linked to information available on a network, e.g. the World Wide Web.

(ii) The conflict between several users is solved by a specific rule (like a majority decision, a weighted majority decision or the result of a game, e.g. rock-paper-scissors play, see page 15, lines 11 to 33), instead of a first come first served rule like in D1.

2.3. Regarding feature (i), hyperlinks are particular GUI items known per se in the field of GUI's used in all sorts of applications (e.g. a world wide web browser, operating systems, word processors etc.) to retrieve information located at the address embedded in it from the environment of the application (e.g. memory, file system, network, etc.). A skilled person would realise that the problem solved by D1 of the conflict between several users does not depend on the type of the

shared application and on the type of GUI items to be selected by users but would also exist in a browser where GUI items are hyper links. Hence the skilled person would readily apply the teaching of D1 to a shared application of the type browser without the exercise of an inventive skill. Hence this distinguishing feature can not contribute to an inventive step.

- 2.4. Regarding feature (ii), the difference between the present application and D1 consists only in the rule used to solve the conflict between several users clicking a button or a link within a given time interval: while in D1, the "first come - first served" rule is applied, in the present application a rule like majority voting is used (as discussed in section 2.1 above).

This rule solves a purely organisational problem, and not a technical one. Therefore, the recognition of this problem as such does not involve an inventive step and it can be put into the formulation of the problem without involving inadmissible hindsight (see, the Comvik decision, T 641/00, OJ EPO 2003, 352, cf. headnote 2; reasons item 7).

The examining division does not contest that GUIs can in principle be technical, nor did it argue so. However, the distinguishing feature (ii) is not technical. In principle, a technical solution to a non-technical problem can be inventive. But the solution to this organisational problem in [claim 1] (see e.g. claim 1, lines 14 to 18) is merely described in terms of general functional means directly describing the above (non-technical) problem, without any reference to more specific technical means. Hence this generic

solution does not contribute to an inventive step....

2.5. Moreover, the rule of solving a conflict between user inputs is independent of the type of information accessed. Hence there is no synergy between the first and the second distinguishing features of the independent [claim 1], and therefore the subject-matter of these claims does not involve an inventive step.

3. Regarding the first auxiliary request, independent [claim 1]...in addition only contains the following feature taken from the description (see page 13, lines 8 to 12):

- when settled, a cursor is displayed with a different colour or shape in order for users to recognise settled cursors from other users.

However, it is known per se in the field of GUI's to change the appearance of a cursor, when the cursor is going over a control button or a hyper-link. Moreover changing the cursor appearance from one user to the other is known from e.g. D1 (see column 2, lines 37 to 40)....

4. Regarding the second auxiliary request, independent [claim 1]...in addition only contains the following feature taken from the description (see page 15, lines 11 to 18):

- the rule of the majority decision is used in case of conflict between several users.

However, even if the type of rule used to solve the problem of conflict between several users is here further specified and emphasized, the choice of this particular rule is still not technical. Hence this distinguishing feature can not contribute to an inventive step either.

5. Regarding the third auxiliary request, independent [claim 1] combine[s] the distinguishing features of the first auxiliary request and of the second auxiliary request. Since there is no synergy - let alone a technical one - they form a mere agglomeration, and not a combination which could be inventive.
  
- V. In the statement of grounds of appeal, 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 first to third auxiliary requests, filed therewith and corresponding to the refused requests.
  
- VI. The Board summonsed the appellant to oral proceedings. In the accompanying annex, the Board summarised the issues to be discussed at the oral proceedings and tended to agree with the division's findings. In a response, dated 1 November 2012, the appellant re-filed the requests already submitted and also filed further arguments.
  
- VII. At the oral proceedings, the appellant maintained the above-mentioned requests.



## Reasons for the Decision

1. The invention allows more than one user (Figure 1: U1, U2, U3) each to control their own cursor (Figure 4A: Cur-1, Cur-2, Cur-3) on a single web page (PAGE A) and select links (b,c,d) to items of information independently and simultaneously [31]. According to one embodiment and claim 1 of the second and third auxiliary requests, the link selected could be determined by a majority decision [33]. According to other embodiments, the determination could include weighting the priority of the cursors [71]. The decision on the link to be selected can be made when all the users have selected a link or a fixed time after the first one has selected [73]. According to claim 1 of the first and third auxiliary requests, after a user selects a link, the cursor may change its shape or colour [61]. The invention can be used by an electronic program guide (EPG) in a television so that members of a family can determine which program is to be watched (Figure 21/[112]).
2. The Board cannot see any prejudicial error in the examining division's conclusion or the reasoning (see section III, above) that the subject-matter of all requests does not involve an inventive step (Article 56 EPC 1973).
3. In particular, taking the more limited claim 1 of the second auxiliary request as a concrete example, the Board agrees with the examining division at points 2.4 and 4 that no technical considerations are involved in deciding to base a decision arrived at by a plurality of persons on the principle of a majority vote as opposed to the first come first served principle underlying the invention described in D1. The decision

to implement a democratic majority rule instead of a first come first served rule merely reflects a different choice of social interaction concerning the manner of decision taking. The appellant argued that the technical considerations appeared in the form of an improved man-machine interface involving navigation where plural cursors are in a contentious state. In the Board's view, however, these considerations mix up the non-technical aspects of resolving contention and the technical aspects of the implementation, the latter being obvious to the degree claimed (see examining division's reasoning at the end of point 2.4) once the problem has been posed.

4. Moreover, in the Board's view, the idea of resolving the contention with a majority vote would be an obvious solution in any case. Faced with the problem of processing the input from a plurality of users, the Board considers that the skilled person would recognise determining the result based on a majority vote as an obvious alternative to the first come first served principle of D1. There may be other solutions, but in the Board's view, the majority vote remains an obvious one.
  
5. The appellant argued that the argument starting from D1 involved a "category error" since D1 did not relate to a plurality of users each having permission to act. In D1 there was therefore no need to make a decision whereas the thrust of the claimed invention was to make a decision. D1 did not use or suggest any decision-making rule, not even according to a "dictatorship" principle since D1 disclosed at column 3, line 25 that other users could force the active user to relinquish control. Thus D1 was concerned with the later stage of implementing the first come first served principle, but

not with the general question of how to resolve contention between users. However, in the Board's view, the disclosure of the invention of D1 should be read against the background and purpose disclosed in the introduction discussed by the examining division at point 2.1, namely overcoming the problem of the conflicts between input of information by multiple users at the same time. Thus, the skilled person would realise that D1 solves the general problem mentioned at column 1, lines 50 to 57, that when a plurality of users have input permission, it is hard to follow what is going on and they may interfere with each other. One of the solutions proposed (column 2, lines 21 to 23) is to let only one user have input permission at a time. This is said to have drawbacks, but in the Board's view it would nevertheless suggest to the skilled person the possibility of this type of solution. Another solution (column 2, lines 34/35) is to show the cursors of all users at the same time. In the Board's view, the skilled person would also consider this display possibility independently of the adopted conflict resolution principle.

6. The appellant argued that D1 only related to inputting data in an application, the only example given being that of a helpline, whereas the invention related to selecting links in a browser. Firstly, the Board is not convinced that the claimed accessing of "items of information" via "link parts" does not cover selecting parts of an application. In particular, D1 discloses at column 1, line 36 "clicking with a mouse". Moreover, the Board agrees with the examining division at point 2.3 that the skilled person would realise that the resolution of the conflict between users does not depend on the type of application involved.

7. Accordingly the Board judges that claim 1 of the second auxiliary request and thus also the broader main request does not involve an inventive step.
8. The Board also agrees with the examining division at point 3 that changing the colour or shape of the settled cursors is known per se in the field of GUI's and even in D1. Its use would be a matter of normal design procedure. The appellant argued that the effect of this feature was to provide a visual cue to users who had not yet made their input. However, even if this is considered to be a technical effect, about which the Board has doubts, it would, in the Board's view, be well known to the skilled person who would thus use it if required.
9. Concerning the third auxiliary request, the appellant argued that there was a synergy between the additional features of the first and second auxiliary requests. However, the Board agrees with the division at point 5 that there is at least no synergy in technical terms and the appellant provided no further argument for one in appeal.
10. Accordingly, claim 1 of all requests does not involve an inventive step (Article 56 EPC 1973), so that the appeal must be dismissed.

## **Order**

### **For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:



T. Buschek

W. Chandler

Decision electronically authenticated