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Datasheet for the decision
of 14 September 2010

Case Number: T 1110/08 - 3.5.03

Application Number: 05003578.1

Publication Number: 1569428

IPC: H04M 1/725

Language of the proceedings: EN

Title of invention:
Portable information apparatus, character display method and
program product for implementing the method

Applicant:
Sharp Kabushiki Kaisha

Opponent:
-

Headword:
Character decoration/SHARP

Relevant legal provisions:
EPC Art. 56

Relevant legal provisions (EPC 1973):
-

Keyword:
"Inventive step (main and auxiliary request) - no"

Decisions cited:
-

Catchword:
-

Case Number: T 1110/08 **-** 3.5.03

D E C I S I O N
of the Technical Board of Appeal 3.5.03
of 14 September 2010

Appellant: Sharp Kabushiki Kaisha
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Decision under appeal: **Decision of the Examining Division of the
                             European Patent Office posted 11 January 2008
                             refusing European patent application
                             No. 05003578.1 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman: A. S. Clelland
Members: B. Noll
                  M.-B. Tardo-Dino

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Summary of Facts and Submissions

I.   This appeal is against the decision of the examining
        division to refuse European patent application
        No. 05003578.1 on the ground that the subject-matter of
        claim 1 of each of the then main and auxiliary requests
        lacked an inventive step having regard to the following
        documents:

        D1:   Microsoft Word 97 User Guide: An Introduction to
              Microsoft Word 97 (1999)
        D5:   WO 03/084064 A1

II.   The applicant (appellant) lodged an appeal against the
        decision. Together with the statement of grounds, new
        sets of claims of a main and an auxiliary request were
        filed. Oral proceedings were conditionally requested.

III.   In a communication accompanying the summons to oral
        proceedings the board gave a preliminary opinion on the
        claimed subject-matter as regards inventive step.

IV.   Together with a reply to the board's communication
        received on 9 August 2010 the appellant filed amended
        sets of claims 1 to 14 according to a main request and
        claims 1 to 11 according to an auxiliary request.

V.   Claim 1 according to the main request reads as follows:

        "A portable information apparatus, comprising:
        an input unit (202) for receiving an external input,
        said input unit including a plurality of buttons (140)
        arranged in predetermined positions;
        a character data generation unit (214) for generating,

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in response to the input of characters, character data
for displaying said characters in a character display
area (1000) of a display unit (150);
a plurality of processing units (212) each for
implementing one of a plurality of decoration functions
of a character;
a storage unit (224) for storing, associating [sic]
with said plurality of decoration functions, image data
for displaying in an image display area (1010) of said
display unit (150) images each associated with one of
said plurality of decoration functions;
and area data representing a range of said character
display area (1000) of said image display area (1010)
and of a preview display area (1040) having an area at
least overlapping said character display area (1000);
a display data generation unit (216) for generating, in
response to an input, display data for displaying
images of a first menu (1030) for selecting one
decoration function; for displaying, after selection of
said decoration function from said first menu (1030), a
second menu (1100) for selecting one of a plurality of
items of said selected decoration function, wherein
said decoration functions are hierarchically configured
in said first and second menu (1030, 1100); and for
displaying an image of at least one character selected
from said input characters to which said selected
decoration function associated with said selected item
are [sic] reflected in said preview display area (1040),
wherein said display unit (150) displays said at least
one selected character in the selected decoration style
in the preview area (1040) while maintaining the
display of the input characters in the pre-decoration
style in the character display area (1000), and
wherein in response to the input of the confirmation of

the selection, the style of the respective input
characters in the character display area (1000) are
switched into the style of the selected decoration,
characterized in that
said storage unit (224) stores data for identifying
each of said plurality of buttons (140) by associating
the same with corresponding one [sic] of said image
data of said images, wherein said plurality of buttons
are associated with said plurality of decoration
functions based on a positional relation between said
images and said predetermined positions of the buttons
(140) and based on the correspondence between said
plurality of decoration functions and said buttons
which correspondence is defined by numeric characters
assigned to each of the decoration functions which are
associated with corresponding numbers of the buttons,
and in that
said display data generation unit (216) generates, in
response to a first depression of one of said plurality
of buttons (140) for selecting said one decoration
function from said first menu (1030) and based on said
positional relation and based on said correspondence,
display data for displaying said second menu (1100) and
generates, in response to a second depression of one of
said plurality of buttons (140) for selecting said one
item of said selected decoration function from said
second menu (1100) and based on said positional
relation and based on said correspondence [sic] display
data for displaying the at least one character to which
said selected decoration function associated with the
selected item is reflected in said preview area
(1040)."

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Claim 1 according to the auxiliary request combines the features of claims 1 and 2 of the main request by adding the words "successively to said first menu (1030) in said image display area (1010) of said display unit (150)" after "display data for displaying said second menu (1100)" in the last feature of claim 1.

VI. Oral proceedings before the board were held on 14 September 2010. The appellant requested that the impugned decision be set aside and a patent be granted on the basis of claims 1 to 14 of the main request, or alternatively on the basis of claims 1 to 11 of the auxiliary request, both filed with the letter of 9 August 2010.

VII. The appellant's arguments submitted in writing and in the course of the oral proceedings can be summarized as follows:

- Although some functions of "Word 97" can be addressed using keys of the keyboard, D1 fails to disclose a simple concept by which each of a first and second menu for decorating text can be invoked by depressing only a single button. In "Word 97" combinations of two or more keys have to be simultaneously depressed for opening the "Font" menu and for selecting a formatting option.
- In order to implement font formatting functions on a mobile device the skilled person would preserve the user interface of "Word 97" and would add an appropriate keyboard or a pointing device to the mobile device, thus leading away from the invention.
- D1 does not disclose associating buttons with selectable decoration functions by position and numerical character of the button.

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- D5 only teaches selecting characters to be inserted in a text from a given character set displayed as images. Starting out from D1 as the closest prior art the skilled person would not be prompted by D5 to store data for associating buttons with images of decoration functions and to further show numeric characters corresponding to the characters on the associated buttons in the images.

VIII.   At the end of the oral proceedings the board announced its decision.

Reasons for the Decision

1.   *Claim 1 of the main request - inventive step (Article 56 EPC)*

1.1   The application relates to a portable device such as a mobile telephone which has facilities for entering and formatting text. The user is provided with a facility to change format options (called "decoration functions" in the application) of text by means of the mobile telephone.

1.2   D1 is an instruction manual for a user of the well-known text processing program "Word 97" which was in widespread public use before the priority date of the application; the appellant accepted that the content of D1 represented common general knowledge. Inter alia, D1 describes how to format text in the word processor. Since this coincides with the object of the application, D1 is considered as the closest prior art for assessing inventive step.

1.3   When running "Word 97" on a computer, a screen
        including inter alia a text window and a bar with
        different menus is created on the display (cf. the
        figure at page 3 of D1). Text entered by the user via
        the keyboard of the computer is apparent in the text
        window. The keyboard constitutes an input unit and the
        computer displaying the text entered by the user in the
        text window a character data generation unit according
        to the first two features of claim 1.

        Furthermore, "Word 97" allows the user to modify
        formatting options of text such as type, size, style
        and colour of the text. These formatting options (in
        the application referred to as "decoration functions",
        cf. paragraph [0100]) are accessed in "Word 97" through
        the menu item called "Font" which is part of the
        "Format" menu. Upon selecting the "Font" item, a "Font"
        menu window is opened, having an appearance as in the
        figure at page 10 of D1. This "Font" menu contains
        various formatting options, some of which (e.g. "Color")
        lead the user downwards in the menu hierarchy to
        further menus. Selecting the "Color" item opens a
        window in which the user may select a colour from a
        colour palette, either by navigating through the
        colours and selecting the desired colour by depressing
        an appropriate sequence of keys on the keyboard or by
        selecting it with the mouse. Thus, "Word 97" shows the
        features of a plurality of processing units, each
        carrying out a particular formatting option and of a
        storage unit for storing images representing selectable
        formatting options and area data representing a
        character and a preview display area.

The "Font" menu window further contains a "Preview" box for displaying text previously selected by the user. This "Preview" box corresponds to the preview display area in claim 1.

The word processor further includes a display data generator unit for generating, according to the selection of items by the user, display data for displaying images of first ("Font") and second ("Color") menus, and displaying the text previously selected by the user in the "Preview" box. The style in which the selected text is displayed in the "Preview" box corresponds to the temporary settings of the formatting options. Changes made to font options become instantaneously visible in the text shown in the "Preview" box. Only upon selecting the "ok" button will the style of the selected text in the normal text window be modified according to the selected formatting options.

In order to make the selection of a menu item using the keyboard easy for the user, the menu items in D1 typically indicate a corresponding key stroke by underlining a letter.

1.4   Regarding the appellant's argument that that arranging decoration functions and items of each decoration function in only two hierarchical menus was not known from D1 but that the user had to traverse at least three menu layers before reaching the "Color" menu, the board is of the view that the number of menus does not imply any distinction over D1: although only "decoration function" and "decoration item" layers are mentioned in the application this does not exclude that

these two layers are embedded in a menu having more than two hierarchical layers.

Furthermore, regarding the appellant's argument that in the invention decoration functions and items are selectable by depressing a single button only, it is noted that the number of keys necessary to select an item in D1 depends on the state of a menu when selecting an item: when the "Format" menu has already been pulled down only the "F" key is required for selecting the "Font" item. Thus, specifying a single key or button for selecting a decoration function or a decoration item cannot distinguish the claimed apparatus from a computer running "Word 97".

The board concludes that the apparatus according to claim 1 is distinguished from "Word 97" described in D1 and running on a computer in that a button is associated with a corresponding decoration function based on a positional relation and by the numeric character of the key appearing in the image of the corresponding decoration function.

1.5   Starting out from D1 as both common general knowledge and the closest prior art, the provision of means enabling a user of a portable device to conveniently enter text formatting options is considered by the board as the objective technical problem to be solved.

The person skilled in the art, faced with the problem of adding text formatting options to a portable device such as a mobile telephone would arrange the formatting options for the device in an analogous structure to that of D1 i.e. with hierarchical menus in which items

are selectable using the standard input means of the
portable device. The skilled person would therefore
provide keys of the mobile device with the function of
accessing the menu and selecting menu items. The
detailed disposition of menus, i.e. the number of menu
layers and the distribution of menu items on the
various layers, is primarily based on non-technical
considerations such as grouping similar options
together in a single menu in order for ease of use; the
disposition of menus is thus a matter of design choice
for the skilled person and does not require the
exercise of inventive skill. Nor does it require
inventive skill to select which menu item is assigned
to which key. The skilled person would moreover be led
by the teaching of D5 to arrange graphics images of
key-selectable items on the display screen in a
configuration conforming to that of the keys on the
keyboard, as is suggested on page 4 lines 13-16 of D5.
Thus, the skilled person, starting out from D1 as the
closest prior art and aware of the teaching of D5 as
regards arranging menu items on the screen so as to
correspond to keys, would arrive at the subject-matter
of claim 1 without the exercise of inventive skill
(Article 56 EPC).

1.6   Regarding the appellant's argument set out above at
        point VII, the board is of the following view:

        - The skilled person knows that the number of menu
        functions accessible with a single key stroke is
        limited to the number of available keys. It follows
        that either the number of menu items has to be limited,
        as in the present application, or the number of
        selection possibilities has to be increased by

selecting menu items by means of multi-key stroke
combinations as in D1. Such considerations do not
require inventive skill. Thus, for a menu having a
simple structure as in the application the skilled
person will foresee selecting an item with only a
single key.

- Adapting the input resources of a device to the user
interface of a given program would be less favourably
considered by the skilled person since this would
require a modification of the structure of the device.
The skilled person would rather consider, as is shown
in D1, that the user interface of the program should be
adapted to the input resources available at the device
by which the program is operated. Thus, for a device
having only a numeric keyboard as an input resource the
skilled person would adapt the program such that its
functions are controlled via the numeric keyboard only.

- Regarding the feature of the character shown in the
image of the decoration function being a numeric
character, this numeric character only serves as a
mnemonic to the user to indicate the key for selecting
the assigned decoration function, in the same way as
the underlined character in each menu item in D1. No
inventive merit can be seen in the character being
numeric since the keys of the keyboard of portable
devices are generally numeric keys.

- Regarding the argument that the keys in D5 are for
selecting a character, the board notes that the
selectable item being a character specifies only the
content of the selectable item. The content, however,
is separate from the process of selection itself and is

therefore irrelevant as regards the contribution to inventive step.

In summary, the board does not find the appellant's arguments convincing.

1.7   Claim 1 according to the main request is therefore not allowable because its subject-matter lacks an inventive step (Article 56 EPC).

2.   *Claim 1 of the auxiliary request - inventive step (Article 56 EPC)*

The feature added in claim 1 of the auxiliary request is understood by the board as causing the first menu to become overlaid by the second menu. In the board's view the arrangement of menus on the screen, whether as overlays or adjacent, is in the present context only a matter of presenting the menu information to the user and does not contribute to the solution of a technical problem. Thus, the device according to claim 1 of the auxiliary request does not involve an inventive step for the same reasons as for claim 1 of the main request.

3.   *Conclusion*

Since neither of the appellant's requests is allowable the appeal has to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar   The Chairman

G. Rauh   A. S. Clelland

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