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Datasheet for the decision
of 18 September 2019

Case Number:	T 2495/17 - 3.5.07
Application Number:	11007779.9
Publication Number:	2423829
IPC:	G06F17/24
Language of the proceedings:	EN

Title of invention:
Scrollable and re-sizeable formula bar

Applicant:
Microsoft Technology Licensing, LLC

Headword:
Resizable formula bar II/MICROSOFT TECHNOLOGY LICENSING

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - all requests (no)

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 2495/17 - 3.5.07

D E C I S I O N
of Technical Board of Appeal 3.5.07
of 18 September 2019

Appellant: (Applicant)	Microsoft Technology Licensing, LLC One Microsoft Way Redmond, WA 98052 (US)
Representative:	Grünecker Patent- und Rechtsanwälte PartG mbB Leopoldstraße 4 80802 München (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 22 June 2017 refusing European patent application No. 11007779.9 pursuant to Article 97(2) EPC**

Composition of the Board:

Chairman	R. Moufang
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. 11007779.9. The application is a
        divisional application of European patent application
        No. 06111605.9.

II.   The Examining Division decided that the subject-matter
        of the independent claims of the main request and
        auxiliary requests 1 to 4 lacked inventive step over
        the following document:

        D4: D. Kusleika: "Ugly Formulas", 23 June 2004,
            retrieved from http://dailydoseofexcel.com/
            archives/2004/06/23/ugly-formulas/.

III.   In its statement of grounds of appeal, the appellant
        maintained its substantive requests.

IV.   In a communication accompanying the summons to oral
        proceedings, the Board introduced the following
        documents:

        D5: US 6 057 837, published on 2 May 2000;
        D6: US 6 239 799 B1, published on 29 May 2001.

        It expressed, *inter alia*, the preliminary opinion that
        the subject-matter of claim 1 of all requests lacked
        inventive step over document D5 in combination with the
        common general knowledge as evidenced by document D6.

V.   In a letter dated 16 August 2019, the appellant
        commented on the Board's communication.

VI.   Oral proceedings took place on 18 September 2019 and
        were attended by the appellant. At the end of the oral
        proceedings, the chairman 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, in the
        alternative, one of auxiliary requests 1 to 4.

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

        "A method for displaying data within a spreadsheet
        application, comprising:

        receiving a first expand request for a formula bar such
        that the expanded formula bar would prevent at least
        one cell from being displayed in the spreadsheet; and

        automatically scrolling (804) a displayed area of the
        spreadsheet such that the at least one cell continues
        to be displayed,

        wherein the at least one cell comprises an active cell
        or cells that contain data."

IX.   Claim 1 of auxiliary request 1 differs from claim 1 of
        the main request in that the following text has been
        inserted after "receiving ... in the spreadsheet;":

        "determining a location of the at least one cell;

        determining a range of displayed cells after the
        expansion of the formula bar;

comparing the location of the at least one cell to the range of the displayed cells;

determining a number of rows to scroll;"

X.   Claim 1 of auxiliary request 2 differs from claim 1 of auxiliary request 1 in that the following text has been added at the end of the claim:

", and

wherein further the expanded formula bar would prevent one or more task panes comprising at least one of a menu bar and a formula bar from being displayed in the spreadsheet, the method further comprising:

moving the one or more task panes such that the one or more task panes continue to be displayed."

XI.   Claim 1 of auxiliary request 3 reads as follows:

"A method for displaying data within a spreadsheet application, comprising:

receiving a first expand request for a formula bar such that the expanded formula bar would prevent an active cell from being displayed in the spreadsheet; and

automatically scrolling (804) a displayed area of the spreadsheet such that the active cell continues to be displayed,

wherein the first expand request is comprised in a series of expand requests in response to a user dragging the bottom of the formula bar, wherein each line of the display that the formula bar moves

corresponds to a single expand request, and the step of automatically scrolling is performed for each expand request of the series for which the correspondingly expanded formula bar would prevent the active cell from being displayed in the spreadsheet."

XII.   Claim 1 of auxiliary request 4 reads as follows:

"A method for displaying data within a spreadsheet application, comprising:

displaying (702) a formula bar comprising a text box (406) for displaying spreadsheet data;

displaying (704) a first portion of the spreadsheet data associated with an active cell in the text box (406);

receiving a first expand request for the formula bar such that the expanded formula bar would prevent the active cell from being displayed in the spreadsheet, the expanding (706) the formula bar increasing display space of the text box to display a second portion of the spreadsheet data associated with the active cell in the text box, the second portion being greater than the first portion and including the first portion; and

automatically scrolling (804) a displayed area of the spreadsheet such that the active cell continues to be displayed."

XIII.   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.   *The invention*

2.1   The background section of the application explains that
        the formula bar of a conventional spreadsheet
        application generally is a text box that displays the
        content of the currently selected ("active") cell as a
        single line. When editing a formula or a collection of
        text that does not fit in the text box, the user must
        continually scroll back and forth to ensure that the
        formula or text is entered correctly.

2.2   The invention essentially proposes a formula bar that
        can be expanded in response to user input to display
        multiple lines of text.

Main request

3.   *Interpretation of claim 1*

3.1   The Board first notes that the application uses the
        term "spreadsheet" to refer both to the spreadsheet
        grid and to the area of a spreadsheet application's
        user interface that displays the visible part of the
        grid (see, in particular, "spreadsheet 116" in
        paragraph [0024] of the description and Figure 1). The
        same applies to claim 1, which refers, on the one hand,
        to cells "being displayed in the spreadsheet" and, on
        the other hand, to "a displayed area of the
        spreadsheet".

3.2   The "first expand request" of claim 1 is "such that the
       expanded formula bar would prevent at least one cell
       from being displayed in the spreadsheet". This refers
       to a situation as described in paragraph [0036] and
       depicted in Figure 4, which shows the user interface of
       a spreadsheet application with an expanded formula bar
       that partially overlaps the screen area for displaying
       the spreadsheet grid and thus hides the grid's top rows
       and column headers (visible in the unexpanded state
       depicted in Figure 3):
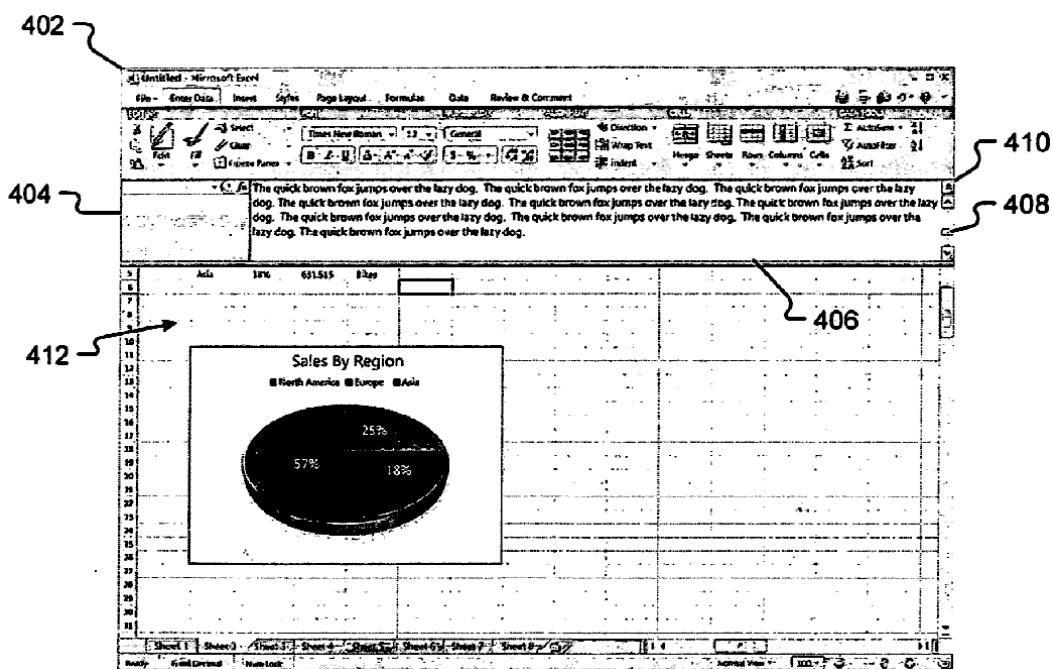
3.3   According to claim 1, "a displayed area of the
       spreadsheet" is automatically scrolled "such that the
       at least one cell continues to be displayed". This
       feature reflects the embodiment described in paragraph
       [0039], which is a variation on the embodiment
       discussed in paragraphs [0037] and [0038]. Paragraph
       [0038] explains that Figure 4 shows an "intermediate
       stage of the expansion process", which is to be
       followed by an automatic "scrolling" of the spreadsheet
       to display the hidden top rows. The result is depicted
       in Figure 5:

3.4   In Figure 5, the expanded formula bar no longer hides
        the column headers of the spreadsheet grid. It is
        therefore apparent that the "scrolling" of paragraph
        [0038] refers not just to a scrolling of the rows of
        the spreadsheet grid through the portion of the user
        interface dedicated to displaying the spreadsheet grid
        (which would not have moved the row of column headers)
        but to a shrinking of that portion to make room for the
        expanded formula bar, whereby the top rows of the
        visible spreadsheet grid continue to be displayed at
        the top.

3.5   In the variation described in paragraph [0039], the
        spreadsheet application determines, after the formula
        bar has been expanded, whether the active cell is still
        in the visible part of the spreadsheet grid. If it is
        not, the spreadsheet application automatically scrolls
        the spreadsheet grid until the active cell is displayed
        again.

3.6   For the purpose of this decision, the Board will
        interpret claim 1 in accordance with the embodiment
        disclosed in paragraph [0039] and will thus focus on
        the "wherein the at least one cell comprises an active
        cell" alternative.

4.   *Inventive step*

4.1   Document D5 contains, in column 1, line 28, to
        column 4, line 59, with reference to Figures 1a to 1g,
        a description of conventional spreadsheet applications
        such as "EXCEL 95" and "EXCEL 97".

        Figures 1a to 1g depict the graphical user interface of
        such a conventional spreadsheet application. The user
        interface includes a single-line formula bar that is
        displayed just above the spreadsheet grid. It is
        apparent from Figures 1a to 1f that the formula bar
        displays the content of the selected/active cell.

        Hence, this prior art discloses a method for displaying
        data within a spreadsheet application comprising a step
        of displaying a formula bar comprising a text box that
        displays spreadsheet data and a step of displaying a
        first portion of the spreadsheet data in the text box.

        As noted in the background section of the application,
        conventional spreadsheet applications have the
        disadvantage that long formulas cannot be displayed in
        full in the formula bar, which renders their editing
        cumbersome for the user.

4.2   The skilled person, starting from such a conventional
        spreadsheet application and faced with the problem of
        improving the editing of long formulas, would have
        realised that the limited screen area of the formula

bar is what renders editing long formulas cumbersome
and that they would be easier to edit if the formula
bar extended over multiple lines. At the same time, it
would have been apparent that enlarging the formula bar
would leave less screen space for displaying the
spreadsheet grid.

The skilled person would have been aware of "splitter
bar" user-interface controls. As evidenced by the
background section of document D6, splitter bars had
been well known at the priority date of the
application. A conventional splitter bar separates two
panes of a user interface either vertically or
horizontally and allows the user to control the
relative proportions of the two panes by dragging the
bar right-left or up-down (see D6, column 1, lines 35
to 48).

Hence, the skilled person would have provided a
horizontal splitter bar between the formula bar and the
spreadsheet grid to serve its normal purpose, which is
to allow the user to control the size of the formula
bar relative to the size of the spreadsheet grid.

The skilled person would thereby have arrived at a
method in which, in response to an expand request in
the form of the user dragging down the splitter bar,
the formula bar expands to display a larger portion of
the spreadsheet data, and the screen area available for
the spreadsheet grid shrinks to make room for the
formula bar.

4.3   Providing a horizontal splitter bar between the formula
        bar and the spreadsheet grid does not necessarily mean
        that the active cell continues to be displayed, i.e.
        remains in the (shrunken) visible part of the

spreadsheet grid when the formula bar is expanded. If the active cell was near the top or near the bottom of the visible spreadsheet grid before the formula bar's expansion, it may have scrolled off the visible spreadsheet grid after the expansion.

The feature of claim 1 "automatically scrolling a displayed area of the spreadsheet such that the [active] cell continues to be displayed" ensures that the active cell remains visible. The appellant argued that keeping the active cell in the field of view improved user experience and was not suggested by the cited prior art.

4.4   Although keeping the active cell within the visible part of the spreadsheet grid may indeed tend to be convenient for the user, the Board does not consider such convenience to be a technical effect. Whether the user, after expanding the formula bar, still needs to see the active cell depends on what spreadsheet manipulations the user wishes to perform and thus on non-technical criteria.

The "automatically scrolling" feature of claim 1 therefore has the technical effect that the active cell remains visible. Looking for a way to keep the active cell visible after an expansion of the formula bar, the skilled person would have found it trivial to implement an "automatic scrolling" of the spreadsheet grid such that the active cell stays within the visible area.

4.5   In sum, the subject-matter of claim 1 lacks inventive step over a conventional spreadsheet application as shown in Figures 1a to 1g of document D5 (Article 56 EPC).

Auxiliary request 1

5.   *Inventive step*

The features added to claim 1 of auxiliary request 1
essentially specify that the number of rows to be
scrolled to ensure that the active cell remains visible
is determined by comparing the location of the active
cell with the range of the displayed cells. Since this
determination is implicit in the "automatically
scrolling" feature of claim 1 of the main request as
interpreted above, the subject-matter of claim 1 of
auxiliary request 1 also lacks inventive step
(Article 56 EPC).

Auxiliary request 2

6.   *Inventive step*

6.1   Compared with claim 1 of auxiliary request 1, claim 1
        of auxiliary request 2 adds the following features:

        -   wherein further the expanded formula bar would
            prevent one or more task panes comprising at least
            one of a menu bar and a formula bar from being
            displayed in the spreadsheet;

        -   moving the one or more task panes such that the one
            or more task panes continue to be displayed.

6.2   The first added feature refers to the "intermediate
        stage of the expansion process" discussed in point 3.3
        above and depicted in Figure 4. It specifies that the
        user interface of the spreadsheet application includes
        "one or more task panes comprising at least one of a
        menu bar and a formula bar" that, at the intermediate

stage of Figure 4, "would" be hidden by the expanded
formula bar. To ensure that they are not hidden but
continue to be displayed, the second added feature
specifies that they are "moved".

6.3   These features therefore confirm that expanding the
        formula bar causes the parts of the spreadsheet user
        interface displayed below the formula bar, including
        any "task panes or other menu bars or formula
        bars" (see paragraph [0051] of the application), to be
        moved downwards to make room for the expanded formula
        bar.

6.4   The user interface of the prior-art spreadsheet
        application shown in Figure 1a of document D5 does not
        show such task panes, menu bars or (further) formula
        bars below the formula bar 106. But the addition of
        such well-known task panes, menu bars or formula bars
        in an area below the formula bar is itself not
        inventive, and it would result in those task panes,
        menu bars or formula bars being moved downwards when
        the formula bar is expanded by means of the obvious
        splitter bar discussed above.

6.5   Hence, the subject-matter of claim 1 of auxiliary
        request 2 lacks inventive step (Article 56 EPC).

Auxiliary request 3

7.   *Inventive step*

7.1   Compared with claim 1 of the main request, claim 1 of
        auxiliary request 3 is limited to the "wherein the at
        least one cell comprises an active cell" alternative
        mentioned in point 3.6 above.

It further includes features expressing that the user expands the formula bar by "dragging the bottom of the formula bar" and that "each line of the display that the formula bar moves" results in a separate expand request for which the "automatic scrolling" is performed if the active cell would otherwise disappear from the visible area of the spreadsheet grid.

7.2   The limitation to "at least one cell" being the active cell has been taken into account in the Board's interpretation of claim 1 of the main request (see point 3.6 above).

7.3   The "dragging" feature refers to the use of a horizontal splitter bar between the formula bar and the spreadsheet grid, which was found to be obvious in point 4.3 above.

7.4   It is normal user-interface behaviour for the dragging down of the splitter bar to result in a series of expand requests: as the user drags the splitter bar down, the graphical user interface is continuously updated.

The appellant argued that limiting the expand requests to one request per line of the formula bar instead of one per pixel saved computing resources. However, the Board considers that the "each line ... corresponds to a single expand request" feature reflects the non-technical decision, relating to presentation of information, to limit the height of the formula bar to a whole number of lines rather than allowing the display of fractional lines. The expected consequences in terms of resource usage of this decision cannot support an inventive step.

7.5   The subject-matter of claim 1 of auxiliary request 3
        therefore lacks inventive step (Article 56 EPC).

Auxiliary request 4

8.   *Inventive step*

8.1   Compared with claim 1 of the main request, claim 1 of
        auxiliary request 4 is limited to the "wherein the at
        least one cell comprises an active cell" alternative
        mentioned in point 3.6 above. It further includes
        features expressing that the formula bar displays a
        portion of the spreadsheet data associated with the
        active cell and that expanding the formula bar results
        in a larger portion of that spreadsheet data being
        displayed in the formula bar.

8.2   These features have been taken into account in the
        Board's reasoning for the main request. Thus, the
        subject-matter of claim 1 of auxiliary request 4 also
        lacks inventive step (Article 56 EPC).

Conclusion

9.   Since none 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 Chairman:

I. Aperribay   R. Moufang

Decision electronically authenticated