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**Datasheet for the decision
of 5 February 2025**

Case Number:	T 1297/23 - 3.5.07
Application Number:	17728252.2
Publication Number:	3427161
IPC:	G06F17/24
Language of the proceedings:	EN

Title of invention:
Intuitive selection of a digital stroke grouping

Applicant:
Microsoft Technology Licensing, LLC

Headword:
Digital stroke grouping/Microsoft

Relevant legal provisions:
EPC Art. 56
RPBA 2020 Art. 12(3), 12(4), 12(5), 12(6)

Keyword:
Inventive step - main request (no)
Admission of request not admitted by the examining division -
first and second auxiliary requests (not admitted)

Decisions cited:
G 0003/08, G 0001/19

Case Number: T 1297/23 - 3.5.07

D E C I S I O N
of Technical Board of Appeal 3.5.07
of 5 February 2025

Appellant: Microsoft Technology Licensing, LLC
(Applicant)   One Microsoft Way
                                  Redmond, WA 98052-6399 (US)

Representative: Grünecker Patent- und Rechtsanwälte
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Decision under appeal: **Decision of the Examining Division of the**
                                  European Patent Office posted on 2 March 2023
                                  refusing European patent application
                                  No. 17728252.2 pursuant to Article 97(2) EPC

Composition of the Board:

Chair   J. Geschwind
Members: R. de Man
                    P. San-Bento Furtado

Summary of Facts and Submissions

I.   The applicant appealed against the decision of the
        examining division refusing European patent application
        No. 17728252.2.

II.   The examining division decided that the subject-matter
        of the independent claims of the main request lacked an
        inventive step over the following document:

        D1: US 2016/0048318 A1, 18 February 2016.

        Auxiliary requests 1 and 2 were not admitted into the
        proceedings under Rule 137(3) EPC.

III.   With its statement of grounds of appeal, the appellant
        maintained the main request and auxiliary request 2
        considered in the decision under appeal unamended and
        corrected a typographical error in auxiliary request 1.

IV.   In a communication accompanying the summons to oral
        proceedings, the board expressed the preliminary
        opinion that the subject-matter of claim 1 of the main
        request lacked an inventive step and that it was not
        inclined to admit auxiliary requests 1 and 2 into the
        appeal proceedings.

V.   At the end of the oral proceedings, which were held on
        5 February 2025, the Chair announced the board's
        decision.

VI.   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, in the alternative, of one of
auxiliary requests 1 and 2.

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

"A device to improve accuracy and computer efficiency
for selecting a grouping of digital strokes,
comprising:

a digital stroke analyzer (122) operative to:

    receive a selection of a digital stroke (206) in a
    graphical user interface; and

    make a determination as to whether the digital
    stroke is part of an existing stroke grouping;

a grouping generator (124) operative to:

    in response to a determination that the digital
    stroke is not part of an existing stroke grouping,
    group a plurality of strokes, including said
    selected digital stroke, into a stroke grouping
    comprising the steps of:

        define a scale testing region around the digital
        stroke;

        calculate an average stroke width and average
        stroke height based on one or more strokes in the
        scale testing region; and

        define a sampling region based on said calculated
        average stroke width and average stroke height;

analyzing the sampling region to determine whether a second digital stroke is in the sampling region; and

when a determination is made that the second digital stroke is in the sampling region:

    adding the second digital stroke to the stroke grouping;

    expanding a first sampling region bound of the sampling region along at least one axis; and

    recursively analyzing the sampling region, adding additional digital strokes found in the sampling region to the stroke grouping, and expanding the first sampling region bound of the sampling region along the at least one axis, and

    when an additional digital stroke is not found in the sampling region or the first sampling region bound cannot be extended along the at least one axis:

    expanding a second sampling region bound of the sampling region along a second axis; and

    recursively analyzing the sampling region, adding additional digital strokes found in the sampling region to the stroke grouping, and expanding the second sampling region bound of the sampling region along the second axis until an additional digital

stroke is not found in the sampling region
or until the second sampling region bound
cannot be extended along the second axis;

wherein a) the first axis is a horizontal
axis and the first sampling region bound is
a horizontal sampling region bound, and the
second axis is a vertical axis and the
second sampling region bound is a vertical
sampling region bound; or b) the first axis
is a vertical axis and the first sampling
region bound is a vertical sampling region
bound, and the second axis is a horizontal
axis and the second sampling region bound
is a horizontal sampling region bound; and

select the stroke grouping or the existing stroke
grouping; and

a user interface engine (126) operative to:

update the graphical user interface to display the
selected stroke grouping or selected existing
stroke grouping,

wherein the horizontal sampling region bound of the
sampling region is expanded on basis of said calculated
average stroke width, and wherein the vertical sampling
region bound of the sampling region is expanded on
basis of said calculated average stroke height."

VIII.   Claim 1 of auxiliary request 1 differs from claim 1 of
        the main request in that the final paragraph has been
        replaced with the following text:

"wherein the horizontal sampling region bound of the
sampling region is expanded by a fraction, such as one-
half of said calculated average stroke width, and
wherein the vertical sampling region bound of the
sampling region is expanded by a fraction, such as one-
fourth of said calculated average stroke height."

IX.   Claim 1 of auxiliary request 2 differs from claim 1 of
         the main request in that the final paragraph has been
         replaced with the following text:

"wherein the horizontal sampling region bound of the
sampling region is expanded by one-half of said
calculated average stroke width, and wherein the
vertical sampling region bound of the sampling region
is expanded by one-fourth of said calculated average
stroke height."

Reasons for the Decision

1.   The application relates to grouping digital strokes.

Main request

2.   *Inventive step*

2.1   Claim 1 of the main request is directed to a device "to
         improve accuracy and computer efficiency for selecting
         a grouping of digital strokes".

         The device comprises a digital stroke analyser, a
         grouping generator and a user interface engine.

2.1.1   The digital stroke analyser receives a selection of a
         digital stroke, apparently from among a number of

digital strokes displayed on a canvas within a graphical user interface (see paragraphs [0037] to [0039] of the description as filed), and checks whether the digital stroke is part of an existing "stroke grouping".

2.1.2   If the digital stroke is not part of an existing stroke grouping, the grouping generator creates a new stroke grouping which includes the selected digital stroke. This is done by looking for strokes in a "sampling region" around the selected stroke and repeatedly extending the sampling region along a first axis until no new strokes are found and then along a second axis, where the first axis is a horizontal axis and the second axis is a vertical axis or the other way around.

The initial size of the sampling region and the amounts by which the sampling region is stepwise extended are based on the average stroke width and the average stroke height in a "scale testing region" around the selected digital stroke.

2.1.3   The user interface engine updates the graphical user interface to display the existing or new stroke grouping.

2.2   Document D1 discloses a computing device programmed to process "digital ink", which is a sequence of strokes drawn by a user on a canvas ("digital ink receiving area") in a graphical user interface (see paragraphs [0026], [0031], [0032], [0086] and Figure 5).

In response to the selection by a user of a digital stroke, a stroke grouping is automatically created by means of ink analysis and displayed within the

graphical user interface (paragraphs [0058] and [0090]
and Figure 8).

2.3   Referring to paragraph [0059] of document D1, the
        appellant argued that document D1 did not disclose
        automatically creating a stroke grouping because human
        intervention was required.

        The board does not agree. Paragraph [0059] explains
        that if the "automatic grouping" is not "exactly what
        the user wanted to select", the user may modify the
        grouping by manipulating the selection boundary. This
        confirms that the initial grouping, described in
        paragraph [0058], is indeed "automatic". Any subsequent
        manual correction by the user in accordance with
        paragraph [0059] is only optional and, in any event,
        not ruled out by any of the features of claim 1.

2.4   The device of claim 1 therefore differs from the device
        of document D1 in two sets of distinguishing features:

        (a) if the user-selected digital stroke is part of an
            existing stroke grouping, the grouping generator
            selects the existing stroke grouping instead of
            generating a new stroke grouping; and

        (b) features specifying the algorithm used for
            generating a new stroke grouping (see point 2.1.2
            above).

2.5   As for the distinguishing features (a), in Figure 8 of
        document D1, if, after the creation of the stroke
        grouping 810, the user again selects a stroke within
        that stroke grouping, it would be an obvious
        possibility to select the existing stroke grouping 810
        instead of re-generating that stroke grouping.

The appellant did not dispute this and relied solely on the distinguishing features (b).

2.6   The distinguishing features (b) are algorithmic in nature and are thus to be taken into account in the assessment of inventive step only to the extent that they contribute to a technical effect.

2.7   The appellant argued that the features (b) made a technical contribution because they related to "how" the task of grouping strokes was automated. This was done not by recognising cognitive information such as characters or meanings but by analysing the positions of strokes on a canvas.

       However, the mere abstract formulation of an algorithm for a task, i.e. the specification of "how" a task is to be automated, is not a technical contribution (see decisions G 3/08, Reasons 13.5.1; and G 1/19, point 112). Technical aspects may be present when the algorithm is particularly suitable to be run on a computer in that its design was motivated by technical considerations relating to the internal functioning of the computer, but the board is unable to identify such considerations in the present case. In this respect, the board notes that the distinguishing features (b) give no details on how the strokes on the canvas are electronically represented, e.g. as pixels or vectors or otherwise.

2.8   The distinguishing features (b) do not contribute to a technical effect through a subsequent use of the created and displayed stroke grouping, either.

2.8.1   In its communication, the board observed that claim 1
        did not specify any further technical use of the
        displayed stroke grouping. In response, the appellant
        argued that it was evident that the created stroke
        grouping would be used in editing actions such as
        deleting or moving a group of strokes.

2.8.2   The board has doubts that this non-claimed intended use
        of the created stroke grouping qualifies as an
        "implied" use within the meaning of decision G 1/19,
        points 94 and 95, i.e. as the only relevant use of the
        stroke grouping that can thus be considered to extend
        over substantially the whole scope of the claimed
        subject-matter.

2.8.3   However, even if this intended use were considered to
        be an implied use of the created stroke grouping, the
        distinguishing features (b) would still not contribute
        to a technical effect over document D1, for the
        following reasons. The stroke grouping created by the
        device of document D1 is also intended to be used in
        editing actions such as deleting and moving (see
        paragraphs [0058], [0088] and [0089] and Figure 7) and
        thus suitable for such use. The stroke grouping of the
        claimed invention is formed by the algorithm specified
        by the distinguishing features (b), which imposes
        certain further limitations on the resulting stroke
        grouping as compared with the disclosure of
        document D1. But these limitations cannot be seen to
        produce any specific technical effect through the
        subsequent use of the stroke grouping in editing
        actions. In particular, whether a stroke grouping
        created by the claimed invention is more likely to
        correspond to the group of strokes on which the user
        wishes to carry out an editing operation than other
        stroke groupings, such as those created by the device

of document D1, is a matter of subjective user
preferences rather than a technical matter.

2.9   The appellant further argued that the claimed invention
        credibly assisted the user in performing the technical
        task of grouping digital strokes. However, the device
        of document D1 already carries out this task
        automatically (see points 2.2 and 2.3 above). Moreover,
        grouping digital strokes is not in itself a technical
        task.

2.10   Hence, the board concludes that the specific algorithm
        specified by the distinguishing features (b) does not
        provide an inventive contribution over document D1.

2.11   Hence, the subject-matter of claim 1 lacks an inventive
        step (Article 56 EPC).

Auxiliary requests 1 and 2

3.   *Admission into the appeal proceedings*

3.1   Auxiliary requests 1 and 2 correspond, up to the
        correction of an obvious mistake in auxiliary request 1
        (replacing "fracture" with "fraction"), to the
        auxiliary requests 1 and 2 considered in the decision
        under appeal. The examining division decided not to
        admit these requests into the proceedings under
        Rule 137(3) EPC.

3.2   In its statement of grounds of appeal, the appellant
        did not give any reason why auxiliary requests 1 and 2
        should be admitted into the appeal proceedings.

        Hence, in respect of auxiliary requests 1 and 2, the
        statement of grounds of appeal does not set out clearly

and concisely why it is requested that the decision
under appeal be set aside, as required by Article 12(3)
RPBA. The board therefore has discretion not to admit
these requests into the appeal proceedings
(Article 12(5) RPBA).

3.3   Moreover, under Article 12(6), first sentence, RPBA,
        the board may admit a request which was not admitted in
        the first-instance proceedings only if the decision not
        to admit the request suffered from an error in the use
        of discretion or if the circumstances of the appeal
        case justify its admission.

        The presence of such an error or such circumstances was
        not argued by the appellant and is not apparent to the
        board.

3.4   The appellant did not comment on the intention
        expressed in the board's communication not to admit
        auxiliary requests 1 and 2 into the appeal proceedings.

3.5   Hence, the board decides not to admit auxiliary
        requests 1 and 2 into the appeal proceedings
        (Article 12(3) to (6) RPBA).

4.   Since the sole request admitted into the appeal
        proceedings is not allowable, the appeal is to be
        dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chair:

S. Lichtenvort   J. Geschwind

Decision electronically authenticated