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# Datasheet for the decision
## of 13 March 2018

**Case Number:**              T 2307/12 - 3.5.07

**Application Number:**       11169565.6

**Publication Number:**       2365446

**IPC:**                      G06F17/21

**Language of the proceedings:**    EN

**Title of invention:**
System and method for browser document editing

**Applicant:**
Cimpress Schweiz GmbH

**Headword:**
Browser document editing/CIMPRESS SCHWEIZ

**Relevant legal provisions:**
EPC Art. 56

**Keyword:**
Inventive step - all requests (no)

**Decisions cited:**
T 0095/86, T 0186/86, T 0641/00, T 1143/06

**Case Number: T 2307/12 - 3.5.07**

# D E C I S I O N
## of  Technical Board of Appeal 3.5.07
### of 13 March 2018

| | |
|---|---|
| **Appellant:**<br>(Applicant) | Cimpress Schweiz GmbH<br>Technoparkstr.5<br>8406 Winterthur (CH) |
| **Representative:** | Fleuchaus, Michael A.<br>Fleuchaus & Gallo Partnerschaft mbB<br>Patent- und Rechtsanwälte<br>Steinerstrasse 15/A<br>81369 München (DE) |
| **Decision under appeal:** | Decision of the Examining Division of the European Patent Office posted on 18 June 2012 refusing European patent application No. 11169565.6 pursuant to Article 97(2) EPC |

**Composition of the Board:**

| | |
|---|---|
| **Chairman** | R. Moufang |
| **Members:** | M. Jaedicke |
| | P. San-Bento Furtado |

**Summary of Facts and Submissions**


I.      The applicant (appellant), which at the time was
        Vistaprint Technologies Limited, appealed against the
        decision of the Examining Division refusing European
        patent application No. 11169565.6, filed as divisional
        application of European patent application No.
        03791843.0 and published as EP 2 365 446 A1. The
        application claims a priority date of 29 August 2002.


II.     In the course of the appeal proceedings, the
        application was transferred to Vistaprint Schweiz GmbH
        (which later changed its name to Cimpress Schweiz
        GmbH), which thereby acquired the status of appellant.


III.    The Examining Division refused the application by means
        of a standard form referring to a communication
        pursuant to Article 94(3) EPC of 10 May 2012. In that
        communication, the Examining Division raised the
        following objections with respect to the then pending
        sole request with the originally filed claims: lack of
        clarity of claim 1, lack of novelty of the subject-
        matter of independent claims 1, 10, 17, 19 and 20 -
        and, in case the applicant's claim interpretation were
        to be adopted, lack of inventive step of the subject-
        matter of claim 1 - over the prior art disclosed in the
        following document:

        D1:   Rees, M. J.: "User Interfaces for Lightweight In-
              Line Editing of Web Pages", Proceedings of the
              First Australasian User Interface Conference
              AUIC '00, 31 January to 3 February 2000,
              pages 88 to 94.

IV.    In the statement of grounds of appeal, the appellant
       requested that the decision be set aside and that a
       patent be granted on the basis of the main request
       considered in the contested decision, or of one of the
       auxiliary requests I to VI submitted with the grounds
       of appeal.

V.     In a communication under Article 15(1) RPBA
       accompanying a summons to oral proceedings, the Board
       *inter alia* expressed its provisional opinion that the
       subject-matter of claim 1 of all the requests lacked
       inventive step in view of document D1 and the common
       general knowledge.

VI.    Oral proceedings were held as scheduled. At the end of
       the oral proceedings, the chairman pronounced the
       Board's decision.

VII.   The appellant's final request was that the decision
       under appeal be set aside and that a patent be granted
       on the basis of the main request as originally filed or
       on the basis of one of auxiliary requests I to VI filed
       with the grounds of appeal.

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

       "A method for revising the object model of a document
       in a browser (102), the method comprising the steps of:
          running an edit tool (105) in said browser (102),
       and, in response to a predetermined document edit
       request made by a user, said edit tool being
       implemented to:
       -      supply a predetermined substitute edit request to
              the browser (102) to cause the browser (102) to
              revise the object model by a placeholder element

reflecting the predetermined substitute edit
request, and

- access and edit the object model after revision,
  so as to achieve the intent of the document edit
  request made by the user, by replacing the
  placeholder element by an element corresponding
  to the edit as requested by the user."

IX.     Claim 1 of auxiliary request I differs from claim 1 of
        the main request as follows:
        (a) The expression "in response to a predetermined
            document edit request made by a user" was amended
            to "in response to an edit action made by a user to
            edit one or more text characters".
        (b) The expression "substitute edit request" was
            amended to "substitute edit command".
        (c) The expression "so as to achieve the intent of the
            document edit request made by the user" was amended
            to "so as to achieve the intended edit made by the
            user".
        (d) The expression "the edit as requested by the user"
            was amended to "the edit as done by the user".

X.      Claim 1 of auxiliary request II differs from claim 1 of
        the main request as follows:
        (a) The expression "in response to a predetermined
            document edit request made by a user" was amended
            to "in response to an edit action to change a font
            parameter of at least one character in the document
            made by a user".
        (b) The expression "substitute edit request" was
            amended to "substitute edit command".
        (c) The expression "so as to achieve the intent of the
            document edit request made by the user" was amended
            to "so as to achieve the change of the font
            parameter".

(d) The expression "the edit as requested by the user" was amended to "the change of the font parameter".

XI.    Claim 1 of auxiliary request III differs from claim 1 of the main request as follows:

(a) The expression "in response to a predetermined document edit request made by a user" was amended to "in response to an edit action made by a user to edit one or more text characters".

(b) The expression "substitute edit request" was amended to "substitute edit command".

(c) The expression "so as to achieve the intent of the document edit request made by the user" was amended to "so as to achieve the intended edit made by the user".

(d) The expression "the edit as requested by the user" was amended to "the edit as done by the user, wherein font size of the object model is specified in pixels".

XII.   Claim 1 of each of auxiliary requests IV to VI corresponds to claim 1 of auxiliary requests I to III, respectively, but amends "predetermined substitute edit command" to "predetermined substitute edit action".

XIII.  The arguments of the appellant which are 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.

**The invention**

2.      The application relates to the editing of text in a
        document displayed in a browser (see paragraph [0001]
        of the published application). The browser uses a
        document object model (DOM) which is an interface
        allowing programs to access and change the content,
        structure and style of the documents. Any changes are
        dynamically incorporated back into the page displayed
        in the browser to the user (see description, paragraphs
        [0002] and [0003] and Figure 1). According to the
        application, a shortcoming in the prior art that limits
        the ability of users to design documents in a browser
        is that browsers typically do not provide a full range
        of editing options for certain types of editing.

3.      The invention provides a system and method that works
        with the DOM to enhance the document-editing abilities
        of the browser (description, paragraph [0013]). An
        editing program using the browser application
        programming interface (description, paragraph [0023])
        and running in the browser contains computer code that
        is activated by certain edit requests from the user.
        The program supplies a substitute edit request to the
        browser in place of the request received from the user.
        The DOM is then accessed and edited to remove the
        portion of the DOM related to the substitute edit
        request and insert appropriate tags to achieve the
        original edit request (description, paragraph [0013]).

        In a preferred embodiment, the predefined substitute
        edit request is to render the character(s) selected by
        the user in a predefined colour (see paragraph [0040]).
        For a very brief time between performing the predefined
        substitute edit action and the completion of the
        revision of the DOM with the user's edit request, the

DOM will contain the result of the substitute edit. Consequently, for a certain time period, the selected characters are rendered in the predefined colour. However, this time period is so brief as to be imperceptible to the human eye under normal operation (see paragraph [0041]).

## Main request

4.      Claim 1 of the main request relates to a "method for revising the object model of a document in a browser", which comprises the following features itemised by the Board:

(a) running an edit tool in said browser, and, in response to a predetermined document edit request made by a user, said edit tool being implemented to:

(b) supply a predetermined substitute edit request to the browser to cause the browser to revise the object model by a placeholder element reflecting the predetermined substitute edit request, and

(c) access and edit the object model after revision, so as to achieve the intent of the document edit request made by the user, by replacing the placeholder element by an element corresponding to the edit as requested by the user.

## Clarity and added subject-matter

5.      While the Board has doubts that the broad wording of claim 1 of the main request meets the requirements of Articles 76(1) and 84 EPC, the Board considers that a detailed assessment of these requirements is not necessary in view of the Board's finding on inventive step, which is detailed below. For its assessment of novelty and inventive step the Board interprets claim 1

in the light of the description.

**Novelty - Article 54 EPC**

6.      The Examining Division decided that claim 1, if
        interpreted as suggested by the Examining Division,
        lacked novelty over the Pardalote editing system
        disclosed in document D1 (see section 8 on pages 92
        and 93). In the statement of grounds of appeal, the
        appellant contested that D1 disclosed all features of
        claim 1. The appellant argued that neither D1 nor any
        other prior-art document disclosed features (b) and (c)
        of claim 1, as the use of a substitute edit request to
        insert a placeholder tag and the later replacement of
        this inserted tag by an element representing the
        original edit as requested by the user were not known.

7.      The Board agrees that document D1 does not disclose the
        use of a substitute edit request and the use of a
        placeholder as defined in features (b) and (c) of
        claim 1. In particular, the fragment editing form
        displayed in Figure 8 of D1 cannot be regarded as a
        "placeholder element reflecting the predetermined
        substitute edit request". It follows that the subject-
        matter of claim 1 is new over document D1.

**Inventive step - Article 56 EPC**

8.      According to the contested decision, if claim 1 is
        interpreted as suggested by the appellant, the closest
        prior art D1 disclosed all features of claim 1, except
        for feature (b) and those parts of feature (c) that
        related to the replacement of the placeholder element.
        The claimed solution was considered to lack inventive
        step as it was unclear which problem was solved by the

invention.

8.1     Document D1 discloses the so-called Pardalote system,
        which is a lightweight in-line editing system (D1,
        page 92, left-hand column, first paragraph in section
        8).
        The Pardalote system uses a dynamic HTML (DHTML)
        document object model and client-side scripting to
        allow in-browser editing (D1, page 92, left-hand
        column, second paragraph in section 8). A Pardalote web
        page differs from a normal web page in that it adds a
        "Save Changes" button and a special in-line editing
        character (D1, page 92, left-hand column, second
        paragraph in section 8). When the user clicks the
        heading of a section marked with the special in-line
        editing character, an editing form is revealed (D1,
        Figure 8 and page 92, left-hand column, third paragraph
        in section 8). Clicking the "Save Changes" button
        commits the text changes to the page (D1, page 92,
        left-hand column, penultimate paragraph).

        It follows that document D1 discloses a method for
        revising the object model of a document in a browser,
        which comprises feature (a) of claim 1 and accesses and
        edits the document object model after revision (when
        the user saves the changes) so as to achieve the intent
        of the document edit request made by the user in the
        displayed editing form.

8.2     The claimed invention therefore differs from the method
        of document D1 in that it includes feature (b) and
        edits the object model by replacing the placeholder by
        an element corresponding to the user's edit request as
        defined in feature (c) of claim 1. In the oral
        proceedings, the appellant agreed to this finding.

8.3     These differences introduce a substitute edit request
        to generate a placeholder as an intermediate step
        before the final update of the object model. As stated
        in paragraph [0041] of the application, the effect of
        this intermediate step on the displayed page is
        imperceptible to the human eye under normal operation.
        Hence, the appellant argued in the oral proceedings
        that the intermediate update of the display in line
        with the substitute edit request was only a by-product.
        Rather, the effect of these differences was to improve
        the possibility to identify in the DOM the location of
        the changes of the intended edit request made by the
        user. The problem to be solved could be formulated as
        how to identify in the DOM the changes made by the user
        when a change is made to a text-containing element of
        the document.

8.4     The Board considers that the overall effect of the
        claimed method, when interpreted in the light of the
        description, is to allow the user to edit the text in
        the document displayed within a browser with a full
        range of editing options including formatting options
        which are not supported by the browser software. The
        Board considers that the activity of editing and
        formatting of text is, apart from any technical means
        used, essentially a non-technical activity. In this
        respect, the Board refers to decision T 186/86 of
        5 December 1989, which states in its Reasons, point 3,
        the following: "The activity of editing a text is
        principally concerned with linguistic and lay-out
        features of a text but, when performed with the aid of
        a machine (text processor), will have to include
        further steps for *inter alia* presenting to the human
        operator the text to be edited in a form suitable for
        that purpose and steps for storing and/or reproducing
        the finalised text. The whole editing method, however,

has for its purpose the creation of a text having a desired information content and lay-out, which means that the method as such aims at solving a problem which is essentially of a non-technical nature." That editing as such is not of technical nature has also been confirmed by later decisions of the boards of appeal (see decision T 95/86 of 23 October 1990, reasons 4).

8.5     In the present case, the provision of further editing options including formatting options not supported by a browser does not serve a technical purpose as it concerns the presentation of text displayed in the browser in a specific manner as required by those further editing options to a human reader. As the presentation of information as such is regarded as not technical (Article 52(2)(d) EPC), the Board considers that a presentation of text in accordance with the chosen editing/formatting options does not contribute to the solution of a technical problem. In this respect the Board cites decision T 1143/06 of 1 April 2009, which states in point 5.4 that "a feature which relates to the manner how cognitive content is conveyed to the user on a screen normally does *not* contribute to a technical solution to a technical problem. An exception would be if the manner of presentation can be shown to have a credible technical effect".

8.6     According to the established case law of the boards of appeal, when assessing inventive step in accordance with the problem-and-solution approach an aim to be achieved in a non-technical field may legitimately be added to the problem as a constraint to be met (see decisions T 641/00, OJ EPO 2003, 352; T 154/04, OJ EPO 2008, 46). Hence, the aim to allow editing options not supported by the browser may be added to the problem as such a constraint. It follows that the appellant's

argument that document D1 could not suggest the claimed solution as the Pardalote system was limited to lightweight in-line editing without any formatting functionality does not persuade the Board.

8.7   At the oral proceedings, the appellant argued that the objective technical problem was how to identify in the DOM the changes made by the user when a change is made to a text-containing element of the document and that change is an editing action such as a format change which is not supported by the browser.

8.8   The skilled person trying to solve the problem posed would first consider solutions which involve a relatively low development effort as the skilled person would consider reusing existing software as far as possible. For this reason, the appellant's argument that the skilled person would rather use a "brute force" approach to solve the problem, even if this involved a massive development effort, does not convince the Board.

8.9   As D1 already discloses editing text elements in a text box and uses a DOM to implement the edit requests, the skilled person recognises that he needs to figure out how to implement in the DOM edit actions not supported by the browser. In the context of the present application, an edit action involves two aspects: identifying the start and end position in the text and the operation (such as changing the font size) which is applied to the text.

8.10   As the DOM implementation is part of the browser software, the skilled person would consider that the identification of the changes in the DOM is best done by the browser itself. For this purpose, it was obvious

to use a substitute edit action, which is applied to
the same text string as the user's intended edit
action. As it was well-known to use mark-up elements
for the definition of start and end positions within
documents (see e.g. D1, page 92, left-hand column, last
paragraph), the skilled person would have implemented
the claimed solution, which consists essentially of the
use of a predefined substitute edit action which
inserts into the DOM a placeholder such as a special
mark-up element to define the start and end positions
in the text to which the edit action applies and which
later replaces the placeholder in the DOM with an
element representing the intended edit action.

8.11    As the application does not disclose how the
        replacement of the placeholder in the DOM is
        implemented and as the appellant argued in the oral
        proceedings that the skilled person would be able to
        implement this step based on his common general
        knowledge, the implementation of step (c) of claim 1
        has to be regarded as obvious.

8.12    In the written proceedings, the appellant argued that
        document D1 was not a promising starting point for the
        invention and provided no incentive for extending the
        functionality provided by the invention. Known browser-
        integrated DOM modification routines were unsuitable
        for handling special or complex DOM changes. Moreover,
        the initial DOM standard ("DOM level 1") did not
        provide functionality to access style attributes
        assigned to the objects. This was only possible since
        the establishment of DOM level 2 in November 2000. D1
        was published before DOM level 2, which meant that the
        DOM standard did not allow the document modifications
        claimed.

8.13    The Board observes that claim 1 does not refer to any
        particular document object model (such as DOM level 1
        or 2). Hence, the appellant's arguments are not
        supported by claim 1 and cannot persuade the Board.

        Moreover, it is remarked that the DOM level 2 standard
        was known at the priority date of the application.
        Consequently, for assessing inventive step, the DOM
        level 2 standard can be combined with document D1.

8.14    It follows that claim 1 of the main request lacks
        inventive step (Article 52(1) EPC in combination with
        Article 56 EPC) over document D1 in view of the common
        general knowledge.

**Auxiliary request I**

9.      Auxiliary request I clarifies that the "edit request"
        is an edit action to edit one or more text characters.
        Moreover, the "predetermined substitute edit request"
        was clarified to be a "predetermined substitute edit
        command" based on paragraphs [0023] and [0040].

**Inventive step - Article 56 EPC**

10.     With respect to inventive step, the appellant argued
        that the invention according to auxiliary request I
        performed an edit action on the text directly, whereas
        D1 used a form to edit the text. Hence, the objective
        problem solved over D1 was how to modify the object
        model of a document when a change is made affecting a
        text-formatting element. D1 did not propose any
        solutions for format changes and did not disclose
        revising the object model by a placeholder element.

10.1    The Pardalote system of D1 supports the insertion and
        deletion of characters (D1, Figure 8). Moreover, the
        Board has already considered editing options including
        format changes in the assessment of inventive step of
        claim 1 of the main request. As the further
        clarifications do not change the substance of the
        claimed subject-matter, the Board considers that the
        amendments made in claim 1 of auxiliary request I
        cannot lead to a different assessment of inventive
        step. It follows that claim 1 of auxiliary request I
        lacks inventive step (Article 52(1) EPC in combination
        with Article 56 EPC).

**Auxiliary request II**

11.     Auxiliary request II essentially amends auxiliary
        request I to specify that the edit action changes a
        font parameter of at least one character (description,
        paragraphs [0032] and [0040]; originally filed claim
        2).

**Inventive step - Article 56 EPC**

12.     The appellant argued that for the invention according
        to auxiliary request II, the objective problem to be
        solved was how to modify the object model of a document
        when a change to the font parameter is made affecting a
        text-formatting element. As the Pardalote system was a
        lightweight editing tool that did not support text
        formatting and as the DOM standard available at the
        time of D1, DOM level 1, did not allow the change of
        style attributes via programs and scripts, the
        invention as defined in auxiliary request II was not
        obvious.

12.1     However, these arguments are not convincing as the
         Board has already considered format changes as editing
         options in the assessment of inventive step of claim 1
         of the main request. Formatting changes such as
         changing the font type, size or colour or changing the
         font style to bold or italics as disclosed in paragraph
         [0032] of the application are considered to be steps of
         a non-technical nature as they aim at specifying the
         manner in which the text is to be presented to a user.
         Moreover, such formatting changes were well known at
         the priority date. Hence, the Board considers that the
         amendments made in claim 1 of auxiliary request II do
         not change its assessment of inventive step. It follows
         that claim 1 of auxiliary request II lacks inventive
         step (Article 52(1) EPC in combination with Article 56
         EPC).

**Auxiliary request III**

13.      Auxiliary request III essentially amends auxiliary
         request I by adding that the font size of the object
         model is specified in pixels (description, paragraphs
         [0033] and [0042]).

**Inventive step - Article 56 EPC**

14.      According to the appellant, auxiliary request III
         indicated that the font size specified in the object
         model is in pixels. As the applicable HTML standard at
         the time of D1, HTML 4.01, did not support font sizes
         in pixels, the objective problem to be solved was how
         to modify the object model of a document when a change
         was made affecting a text-formatting element and
         provide absolute font sizing. Absolute font sizing was
         an essential feature of WYSIWYG ("what you see is what
         you get") document design and printing services as it

allowed to precisely control and match character sizes
(see description, paragraph [0011]).

14.1    As the Board has already considered document edit
        options not supported by the browser in its assessment
        of inventive step of claim 1 of the main request, the
        issue is whether the specification of the font size in
        pixels contributes to the solution of a technical
        problem. The appellant argued that such an absolute
        font sizing feature was essential for WYSIWYG document
        design and printing services. However, claim 1 of
        auxiliary request III is not concerned with printing
        and does not specify that the document is presented to
        the user using the revised object model or that a
        WYSIWYG design was intended. Hence, the Board doubts
        that a credible technical effect can be derived from
        the specification of the font size in pixels. In any
        case, WYSIWYG document design was notorious at the
        priority date and hence supporting such a design by
        means of a font size specified in pixels was an obvious
        extension of the teaching of document D1. The argument
        that HTML 4.01 did not support such font sizes is not
        convincing for the following reasons: The relevant date
        for assessing inventive step is not the publication
        date of the closest prior art D1, but the priority date
        of the application. The skilled person would have been
        able to modify the Pardalote system of D1 by adding the
        font size in pixels to specific markup elements, such
        as the SPAN and DIV markup elements known in HTML 4.01,
        without any need to exercise inventive skills. At the
        priority date, the use of markup elements to add
        metadata such as a font size was a matter of routine.

        It follows that claim 1 of auxiliary request III lacks
        inventive step (Article 52(1) EPC in combination with

Article 56 EPC).

## Auxiliary requests IV to VI

15.     Auxiliary requests IV to VI correspond to auxiliary
        requests I to III, respectively, but differ in that the
        term "predetermined substitute edit command" is
        replaced by the term "predetermined substitute edit
        action" (see paragraph [0040] as originally filed).

16.     The Board considers that these requests do not differ
        in substance from auxiliary requests I to III,
        respectively, as the Board, in the light of the
        description of the present application, cannot see a
        substantial difference between an edit action made by
        the user and an edit command. Consequently, the Board's
        negative assessment of inventive step of claim 1 of
        auxiliary requests I to III applies *mutatis mutandis* to
        claim 1 of auxiliary requests IV to VI.

## Conclusion

17.     As none of the appellant's requests can form the basis
        for the grant of a patent, the appeal has 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