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Datasheet for the decision
of 28 June 2017

Case Number: T 1126/13 - 3.5.06

Application Number: 07022874.7

Publication Number: 1939743

IPC: G06F9/54

Language of the proceedings: EN

Title of invention:
Message processing using queues

Applicant:
SAP SE

Headword:
Message processing/SAP

Relevant legal provisions:
EPC 1973 Art. 56

Keyword:
Inventive step - (no)

Decisions cited:

EPA Form 3030
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Catchword:

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Boards of Appeal

Chambres de recours

Case Number: T 1126/13 - 3.5.06

D E C I S I O N
of Technical Board of Appeal 3.5.06
of 28 June 2017

Appellant:	SAP SE
(Applicant)	Dietmar-Hopp-Allee 16
	69190 Walldorf (DE)
Representative:	Müller-Boré & Partner
	Patentanwälte PartG mbB
	Friedenheimer Brücke 21
	80639 München (DE)

Decision under appeal: **Decision of the Examining Division of the European Patent Office posted on 19 December 2012 refusing European patent application No. 07022874.7 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	W. Sekretaruk
Members:	G. Zucka
	A. Teale

Summary of Facts and Submissions

I.   The appeal is against the decision by the examining
        division, dispatched with reasons on 19 December 2012,
        to refuse European patent application 07022874.7 for
        lack of claims on file (Article 78(1)(c) EPC).

II.   A notice of appeal was received on 13 February 2013,
        the appeal fee being paid the next day. A statement of
        the grounds of appeal was received on 26 February 2013.

III.   The appellant requested that the decision under appeal
        be set aside and a patent granted on the basis of the
        claims of a main or one of three auxiliary requests,
        all filed with the grounds of appeal. The appellant
        made a conditional request for oral proceedings.

IV.   The board issued a summons to oral proceedings. In an
        annex to the summons, the board set out its preliminary
        opinion that the appeal should be dismissed.

V.   On 26 May 2017, the appellant filed claims 1 to 11 for
        each of a new main and three auxiliary requests.

VI.   The appellant requests that the decision under appeal
        be set aside and that a European patent be granted on
        the basis of the main request or one of the auxiliary
        requests 1-3, all filed on 26 May 2017.

VII.   The further text on file is:

        description pages
        1 to 29 as originally filed;

        drawing sheets
        1 to 15 as originally filed.

VIII.   Independent claim 1 of the main request reads as
         follows:

         "A computer-implemented method comprising:
             buffering a message in a queue (204; 304) of
         incoming messages,
             associating the message with properties by
         buffering the properties with the message in the queue
         (204; 304);
             generating a process instance to process content of
         the message if based on the properties the message is
         determined as being a type of message for which a
         process instance is to be generated;
             associating the message with the process instance
         as a first message in a group of one or more messages
         to be processed if criteria is met;
             determining whether the criteria is met;
             processing the first message in response to a
         determination that the criteria is met; and
             dequeueing the message based on the properties,
             wherein the properties characterize:
                 whether a process instance is to process the
             content of the message;
                 a number of process instances handling the
             message, the handling including incrementing the
             number of process instances handling the first
             message, determining whether the first message
             meets criteria of a message filter associated with
             a first process instance, and incrementing an index
             value of the first process instance; and
                 a number of process instances that have
             processed the content of the message."

IX.   Independent claim 1 of auxiliary request 1 differs from
        that of the main request in that the following wording
        is added at the end:

        "; and wherein the messages are processed in a
        decentralized fashion by the process instances which
        access the queue (204; 304), wherein the messages are
        chained such that a sequence of related messages are
        processed by one process instance until said one
        process instance terminates processing messages in the
        sequence".

X.   Independent claim 1 of auxiliary request 2 differs from
        that of auxiliary request 1 in that the following
        wording is added before the wording cited under IX.
        above:

        "; wherein the message is dequeued if the properties
        indicate that no process instances are handling the
        message and the properties indicate that no process
        instance is to process content of the message;
             wherein, if the content of the message is to be
        processed by a threshold number of process instances,
        the message is dequeued only if the properties indicate
        that the threshold number of process instances have
        processed the content of the message".

XI.   Independent claim 1 of auxiliary request 3 differs from
        that of auxiliary request 2 in that the following
        wording is added after "and incrementing an index value
        of the first process instance":

        ", the index value being for an index into the queue
        (204; 304), wherein the first process instance performs
        operations of the handling if the first message matches
        the index value of the first process instance".

XII.   At the end of the oral proceedings, the chairman
        announced the board's decision.

Reasons for the Decision

1.   *The admissibility of the appeal*

        The appeal is admissible.

2.   *Main request - inventive step; Article 56 EPC 1973*

2.1   According to the board, the somewhat imprecise
        expression "computer-implemented method" in claim 1 of
        the main request should be read as "method implemented
        as a program running on a computer". The board leaves
        open whether this should be considered to constitute a
        program *as such* running on a computer, *i.e.* whether
        claim 1 (and, for analogous reasons, claim 5, which
        sets out a computer program product,) should be
        excluded from patentability under Article 52(2)(c)
        EPC 1973, because it would not affect the board's
        decision regarding the appeal. Instead, it is assumed
        in what follows that the presence of the word
        "computer" confers technical character on the claim.

2.2   The board is however of the opinion that, as far as the
        computer on which the program is running is concerned,
        the features of claim 1 have no tangible effect
        compared to the prior art program illustrated in figure
        1 of the application.

2.3   As argued by the appellant, the claimed method differs
        from said prior art essentially in that a central queue
        is used, which is itself responsible for generating
        process instances, all of which have access to the
        messages in the queue, and the messages are not
        dequeued until it is established that no more process
        instances need to process the message.

2.4   According to the board, such a scheme should be seen as
        part of the art of computer programming, as a measure
        to be used by the programmer to ensure that messages do
        not remain unprocessed (referred to as "zombie
        messages" in the description on page 6, line 2).

2.5   This measure however produces no technical effect as
        far as the computer is concerned. The computer will not
        notice whether messages are effectively processed. It
        will continue to run equally well in either case and
        will, for instance, not consume more or less power. If
        anything, it could be argued that making certain that
        all messages are processed will impose a somewhat
        higher loading on the computer.

2.6   It is also not possible to make a meaningful assessment
        about some technical effect that might occur outside
        the computer, given that the claim provides no detail
        about the nature of the messages or the context in
        which the processing takes place. As far as the claimed
        method is concerned, the messages are simply abstract
        objects to be processed; they are not necessarily
        connected to physical objects existing outside the
        computer.

2.7   According to the appellant (middle of page 18 of the
        reply to the summons), the technical effect of the
        distinguishing features of claim 1 is, firstly, to

achieve reliable execution of processing of messages and, secondly, to improve overall performance of the system.

As regards the first point, the board observes that the distinguishing features do not increase the reliability of the computer. As stated under 2.5 above, the computer will, from a technical point of view, remain equally reliable, independently of whether messages remain unprocessed. It is only the *program* running on the computer which becomes more "reliable", in the sense that it will deal with situations not foreseen in the prior art system illustrated in figure 1 of the application. The board however considers it to be purely a task for the programmer, and hence a non-technical task, to make certain, using sound programming techniques, that all possible situations are dealt with by the program, thereby avoiding an incorrect or unpredictable outcome.

As regards the second point, the appellant has not specified in which way the overall performance of the system would be improved by the distinguishing features of claim 1. On the contrary, it would seem to the board that the prior art system illustrated in figure 1, because of its simplicity, would perform better than the method of claim 1 (albeit at the risk of some messages remaining unprocessed).

2.8   Given that there is no technical effect which could be taken into account for establishing the presence of an inventive step, the board considers that the subject-matter of claim 1 of the main request does not involve an inventive step; Article 56 EPC 1973.

3.   *Auxiliary requests*

The features added to claim 1 of the auxiliary requests
merely define the claimed method more precisely without
affecting the above reasoning. The board therefore
considers that the subject-matter of claim 1 of the
auxiliary requests also does not involve an inventive
step; Article 56 EPC 1973.

4.   *The possible need for an additional search*

Given that the above reasoning makes no assumptions
about what is known in the prior art, beyond what is
acknowledged by the appellant himself in figure 1 of
the application, and the undeniable fact that computers
are notorious, the board judges that an additional
search is not required. It is of the opinion that this
finding does not contradict the reasoning given in any
of the decisions cited by the appellant on pages 16 and
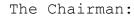17 of the reply to the summons.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

B. Atienza Vivancos   W. Sekretaruk

Decision electronically authenticated