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**Datasheet for the decision
of 15 March 2023**

Case Number: T 1564/17 - 3.5.06

Application Number: 12801790.2

Publication Number: 2696285

IPC: G06F9/50

Language of the proceedings: EN

Title of invention:

METHOD AND DEVICE FOR ALLOCATING RESOURCE

Applicant:

Huawei Device Co., Ltd.

Headword:

Scenario testing/HUAWEI

Relevant legal provisions:

EPC Art. 54, 84

Keyword:

Novelty - (no)

Claims - clarity (no)

Decisions cited:

Catchword:



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Case Number: T 1564/17 - 3.5.06

D E C I S I O N
of Technical Board of Appeal 3.5.06
of 15 March 2023

Appellant: Huawei Device Co., Ltd.
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 13 February
2017 refusing European patent application No.
12801790.2 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman M. Müller
Members: S. Krischer
W. Sekretaruk

Summary of Facts and Submissions

- I. The appeal is directed against the decision of the examining division, dated 13 February 2017, to refuse application No. 12801790.2 for lack of novelty over D2 (US 2012/079497 A1) and inventive step over D2 and common general knowledge.
- II. A notice of appeal was received on 11 April 2017. The appeal fee was paid on the same day. A statement of grounds of appeal was received on 9 June 2017, with which claim sets according to two auxiliary requests were filed. Oral proceedings were conditionally requested.
- III. In its summons to oral proceedings, the board a raised objections of lack of clarity and novelty.
- IV. In response to the board's communication, the appellant filed neither arguments nor amendments, but, with letter dated 2 March 2023, withdrew its request for oral proceedings and stated that it did not intend to participate in the scheduled oral proceedings.
- V. Subsequently, oral proceedings were cancelled.
- VI. The appellant requests that the decision under appeal be set aside and that a patent be granted on the basis of claims 1-11 according to the main request underlying the decision under appeal, filed with a letter of 2 November 2016 and re-filed with the grounds of appeal, or claims 1-11 according to auxiliary request 1 or claims 1-9 according to auxiliary request 2, both filed with the grounds of appeal.

VII. Claim 1 of auxiliary request 2 reads as follows:

"1. A method for configuring a resource, comprising:
defining (S101) an application sub-scenario of an application according to a use scenario of the application:

testing (S102) the application and recording system resource occupation information of the defined application sub-scenario of the application when the application sub-scenario works in a test process, and
allocating (S103) a system resource to a currently active application sub-scenario in an application according to the recorded system resource occupation information of the application sub-scenario of the application, wherein

a resource configuration mapping table is set and identifiers of application sub-scenarios of the application and the recorded system resource occupation information of the application sub-scenarios are correspondingly stored in the resource configuration mapping table and while the application works, system resources for the currently active application sub-scenario of the working application are configured directly according to the resource configuration mapping table recorded by the recording module."

The precise wording of claim 1 of the two higher-ranking requests is not relevant for this decision, apart from the fact that their scope is strictly more general than this one.

Reasons for the Decision

1. The application relates to scenario testing of a software application and allocating a system resource (e.g. memory, CPU, frequency or network services; original description page 5, lines 26-27) to a "currently active application sub-scenario in an application" (figure 1: S103) according to "system resource occupation information" (S102) recorded during testing a previously defined "application sub-scenario" (S101; claim 1 of auxiliary request 2 and claim 2 of the main request and auxiliary request 1).
 - 1.1 Such a sub-scenario (also called "use scenario" in the description) to be tested, and as defined by technical staff can be, for example, "text browsing", "page turning" or "bookmark adding" in an e-book application (page 4, lines 18-24). In general, a use scenario (or sub-scenario) can apparently be any *function* of an application (page 5, lines 5-7).
 - 1.2 During testing, a "resource configuration mapping table" is created to store the measured "system resource occupation information" for the tested sub-scenarios (table 2 on page 7; page 6, first paragraph).
2. The board finds that in the first step of claim 1 of all requests ("defining (S101) an application sub-scenario of an application according to a use scenario of the application") it is unclear what the difference between a sub-scenario and use scenario is. As mentioned above, the description gives the same examples for both of them. Therefore, claim 1 is unclear (Article 84 EPC). In what follows, the board

interprets this step as equivalent to simply "defining (S101) an application sub-scenario of an application".

3. In its assessment of inventive step, the board focuses on claim 1 of auxiliary request 2, since it is narrower than claims 1 of the other requests.
- 3.1 In its decision, the examining division used D2 as the starting point for assessing inventive step. The board agrees with this choice.
- 3.2 The examining division found claim 1 of then auxiliary request 2 to be new but to lack an inventive step over D2.
- 3.3 However, the board is of the opinion the subject-matter of claim 1 of auxiliary request 2 is not only not inventive, but also not new (Article 54 EPC) over D2.
- 3.4 Claim 1 of current auxiliary request 2 is essentially a reformulation of claim 1 of then auxiliary request 2 (dated 13 December 2016). The board agrees with the mapping of the features of that claim with those of D2 in the decision (16., 22. and 30.).
- 3.5 In comparison to claim 1 of previous auxiliary request 2, an explicit step of "defining an application sub-scenario" has been added at the beginning, replacing the feature that "the application [...] is decomposed into application sub-scenarios" and the reference to testing the application "after the application sub-scenario of the application is defined".

- 3.6 Moreover, an explicit step of "testing (S102) the application, and recording system resource occupation information of the defined application sub-scenario of the application when the application sub-scenario works in a test process" was added. In claim 1 of then auxiliary request 2 the testing was - and is in the presently higher-ranking requests - contained in the feature that "the system resource occupation information of the application sub-scenario of the application comprises the system resource occupation information recorded when the application sub-scenario works in a process of testing".
- 3.7 The board considers that these amendments do not affect the examining division's correct finding, which was, in this regard, that D2 disclosed both the "defining" and the "testing" (see esp. decision page 7, penultimate paragraph, and page 8, paragraph 3).
- 3.8 The board in particular agrees with the examining division that D2 discloses "sub-scenarios", namely with the expression "parts of the application" in the following passage in paragraph [61] of D2, cited in section 22 on page 8 of the decision:

"Workload measurements concerning the resource requirements of the application are extracted and used at step 250 to populate the statistics tables which constitute part of the model as indicated by the broken arrow between steps 24 and 250 and as described in more detail hereafter. By thoroughly testing the requirements of the application under a range of operating conditions, *the model statistics tables can be populated so as to reflect the likely requirements of different parts of the application*

under different real world conditions, in normalised form." (emphasis added)

This is because "sub-scenarios" are ultimately nothing more than functionalities of the application, just like "parts of the application".

- 3.9 In the decision, the examining division considered the paragraphs introducing the "resource configuration mapping table" not to be disclosed in D2 (see section 31.).
- 3.10 The board however considers that the above mentioned "model statistics tables" which are "populated" in controlled test conditions" (D2, [61]) constitute the claimed "resource configuration mapping table" which are set and wherein the system resource occupation information recorded during testing is stored. In the example table of [107], the "Index Audio Data Interfacel" corresponds to the identifier of an "application sub-scenario" in the claimed table. And the two other data in the table in [107] (RESOURCE "Index Audio Interface1" and WORKLOAD "W100") represent the "measured "system resource occupation information" in the claimed table. According to [103], there are well-known industry standards describing application performance metrics.
- 3.11 With respect to the feature mapping in the decision (section 16.), the grounds of appeal (page 2, paragraph 5 to page 3, paragraph 2) state that D2 did not disclose resource allocation, in particular in the context of a finite state machine representing an application (D2, [162], fourth sentence; see also

decision, middle of page 4 to middle of page 5 referring to D2, [161]-[164]).

- 3.12 However, the board sees no need to use the "third embodiment" ([162]) with finite state machines in its feature mapping. It nevertheless agrees with the decision (page 4, paragraph 4) that paragraph [47] (which is not related to [162]) discloses resource allocation in the wording "system resource settings are adjusted as a function of the resource requirement predictions provided by the model".
- 3.13 The board furthermore agrees with the appellant (grounds of appeal, page 15, fourth paragraph) that the invention uses a "monitoring approach" whereas D2 uses a "modelling and simulation approach", but considers that the modelling and simulation approach according to D2 is a refinement of a mere monitoring approach, since D2 clearly monitors ("measures") the resource requirement during its modelling. This is confirmed by the fact that D2 says in paragraph [13] that monitoring (alone) provides only "raw prediction capabilities". It follows that the claimed monitoring features are disclosed in D2.
- 3.14 Therefore, the subject-matter of claim 1 of auxiliary request 2 is not new (Article 54 EPC). It follows that broader claims 1 of the other requests are not new either.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



L. Stridde

Martin Müller

Decision electronically authenticated