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Datasheet for the decision of 17 June 2011

Case Number: T 1369/07 - 3.5.06

Application Number: 99913564.3

Publication Number: 1132803

IPC: G06F 1/32

Language of the proceedings: EN

Title of invention:
Electronic device, control circuit for electronic device, and method of controlling electronic device

Applicant:
FUJITSU LIMITED

Headword:
State transition nullification / FUJITSU

Relevant legal provisions:
EPC Art. 54, 56, 84
EPC R. 42(1)(b)

Keyword:
"Clarity (no)"
"Novelty (yes)"
"Inventive step (no)"

Decisions cited:
-

Catchword:
-

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Case Number: T 1369/07 - 3.5.06

D E C I S I O N
of the Technical board of Appeal 3.5.06
of 17 June 2011

Appellant: FUJITSU LIMITED
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 30 March 2007 refusing European patent application No. 99913564.3 pursuant to Article 97(1) EPC 1973.**

Composition of the board:

Chairman: D. H. Rees
Members: G. Zucka
C. Heath

Summary of Facts and Submissions

I. The appeal is against the decision by the examining division dispatched on 30 March 2007 to refuse European patent application 99913564.3 on the basis that the subject-matter of claims 1 and 8 (the independent claims) of a main request and claim 1 (the sole independent claim) of a first and a second auxiliary request, all filed during oral proceedings on 21 March 2007 is not inventive, Article 56 EPC 1973, in view of the following documents:

D1: EP 0 805 386 A
D2: US 5 612 520 A

II. A notice of appeal was received on 31 May 2007, the appeal fee being paid on the same day. A statement of the grounds of the appeal was received on 27 July 2007.

III. The appellant requested that the decision be set aside. The requests upon which the appealed decision had been based were maintained. The appellant further requested oral proceedings as an auxiliary measure.

IV. The board issued a summons to oral proceedings. In an annex to the summons, the board set out its preliminary opinion on the appeal, *viz.* that claims 1 and 8 of the main request were not clear, that the subject-matter of these claims, with their present wording, was not inventive, and that both objections also applied to claim 1 of the first and the second auxiliary request.

V. The appellant's representative announced in a letter dated 15 March 2011 that he would not attend the oral

proceedings. No substantive response was made to the board's arguments. The oral proceedings were held on 17 June 2011, in the absence of the appellant.

VI. The board understands the appellant's main request to be as follows: that the decision under appeal be set aside and that a patent be granted on the basis of the documents already submitted to the examining division, *viz.* claims 1-8 as filed during the oral proceedings on 21 March 2007, entitled "main request"; description pages 1-19 as originally filed; drawings, sheets 1/9-9/9 as originally filed.

As a first and second auxiliary request, the appellant requests the grant of a patent based on the sets of claims entitled, respectively, "auxiliary request I" and "auxiliary request II", filed during the oral proceedings on 21 March 2007.

VII. The independent claims of the main request read as follows:

Claim 1

"A control circuit of an electronic apparatus (100), said apparatus having a chip set (139) being configured to comply with the ACPI standard, said circuit comprising

- input means (110),
- input operation detection means (145) for detecting a presence or absence of a predetermined input operation by said input means (110),
- state transition control means (139) for changing a state of the apparatus (100) from a first state to a

second state when said input operation detection means (145) detects an operation of said input means (110), and for changing the state of the apparatus (100) to a third state when a continuation of the operation of said input means for a predetermined period (T0) or longer is detected, the first, second, and third states being different from one another,

said control circuit being characterized by comprising:

- nullification means (152) for nullifying the effect of the continued operation of said input means (110) for said predetermined period (T0) or longer so that the state of the apparatus is not changed to said third state by continued operation of said input means (110) for said predetermined period (T0) or longer"

Claim 8

"A method of controlling the changes of state of an electronic apparatus having a chip set being configured

- to comply with the ACPI standard and to detect the presence or absence of an predetermined input operation,
- to change the state of the apparatus from a first state to a second state when the predetermined input operation is detected, the first and second states being different from each other, and
- to change the state of the apparatus to a third state when the operation of the predetermined input operation for a predetermined period or longer is detected, the third state being different from the first and second states,

the method being characterized

- in nullifying the effect of the continued predetermined input operation so that apparatus cannot

be put in the third state be said predetermined input operation"

VIII. The independent claim of the first auxiliary request (claim 1) reads as follows:

"An electronic apparatus (100) having a chip set (139) being configured to comply with the ACPI standard, said apparatus comprising

- a SUSPEND/RESUME button (110),
- a SUSPEND/RESUME signal generation circuit (145) for detecting operation of by said SUSPEND/RESUME button (110),
- said chip set being connected to said SUSPEND/RESUME signal generation circuit (145) and being able to change a state of the apparatus (100) from a first state to a second state upon operation of said SUSPEND/RESUME button (110) for a first period of time and to a third state when SUSPEND/RESUME button (110) is operated for a second period of time (T0) or longer, said second period being longer than said first period,

characterized in that

- a SUSPEND/RESUME signal generation circuit (145) comprises a SUSPEND/RESUME signal control part (152) for nullifying the effect of the continued operation of said SUSPEND/RESUME button (110) for said second period of time (T0) or longer so that the state of the apparatus is not changed to said third state"

IX. The independent claim of the second auxiliary request (claim 1) reads as follows:

"An electronic apparatus...(as defined in claims 1.-3. of the Auxiliary Request I)" (*sic*)

This is interpreted as meaning that the claim reads as follows:

"An electronic apparatus (100) having a chip set (139) being configured to comply with the ACPI standard, said apparatus comprising

- a SUSPEND/RESUME button (110),
- a SUSPEND/RESUME signal generation circuit (145) for detecting operation of by said SUSPEND/RESUME button (110),
- said chip set being connected to said SUSPEND/RESUME signal generation circuit (145) and being able to change a state of the apparatus (100) from a first state to a second state upon operation of said SUSPEND/RESUME button (110) for a first period of time and to a third state when SUSPEND/RESUME button (110) is operated for a second period of time (T0) or longer, said second period being longer than said first period,

characterized in that

- a SUSPEND/RESUME signal generation circuit (145) comprises a SUSPEND/RESUME signal control part (152) for nullifying the effect of the continued operation of said SUSPEND/RESUME button (110) for said second period of time (T0) or longer so that the state of the apparatus is not changed to said third state
- said SUSPEND/RESUME signal control part (152) comprises a capacitor (155) having two ends, one of which being connected to the input means (110) and the other being connected to an amplifier circuit (158) and

- a power supply (159) is connected via a resistor (156) to the connection point of said capacitance (155) and said amplifier circuit"

X. At the end of the oral proceedings, the board announced its decision.

Reasons for the decision

1. Reference is made to the transitional provisions for the amended and new provisions of the EPC, from which it may be derived which Articles of the EPC 1973 are still applicable to the present application and which Articles of the EPC 2000 shall apply.

2. *The admissibility of the appeal*

In view of the facts set out at points I and II above, the appeal is admissible, since it complies with the EPC formal admissibility requirements.

3. *The appellant's non-attendance at the oral proceedings*

3.1 As announced in advance, the duly summoned appellant did not attend the oral proceedings.

3.2 In accordance with Article 15(3) RPBA, the board relied for its decision only on the appellant's written submissions. The board was in a position to decide at the conclusion of the oral proceedings, since the case was ready for decision (Article 15(6) RPBA), and the voluntary absence of the appellant was not a reason for delaying a decision (Article 15(3) RPBA).

4. *Clarity, Article 84 EPC*

4.1 *Main request*

4.1.1 *Claim 1*

It is not clear which limitations are imposed on the claimed circuit by the fact that the electronic apparatus, intended to be controlled by the circuit, has a chip set that is configured to comply with the ACPI standard. In particular, it is not clear from the wording of the claim whether the "states" correspond to some of the states that are defined in the ACPI specification and, if so, to which states in that specification they correspond.

From the applicant’s arguments, one could get the impression that the first, second and third states correspond to, respectively, an "on" state, a "suspend" state and an "off" state, as defined in the ACPI specification. However, the claim is not limited in this manner.

The independent apparatus claim 1 is, therefore, not clear (Article 84 EPC).

4.1.2 *Claim 8*

The independent method claim 8 is not clear (Article 84 EPC) for the same reason as given for the independent apparatus claim 1.

4.2 *First and second auxiliary request*

The independent claim 1 of the first and the second auxiliary request lacks clarity (Article 84 EPC) for the same reason as given for the main request.

4.3 Since none of the requests satisfies the requirements of Article 84 EPC, the appeal must be dismissed. However since the appealed decision was based on a lack of an inventive step, the board will also give its view on this point.

4.4 In the board's judgement, the reference to the ACPI standard in the independent claims in all the requests must be interpreted in the broadest sense compatible with the overall wording of the claims. Specifically, it is interpreted as imposing the technical limitation that the "chip set" in the claims either (1) comprises some components that perform some functions defined in some version of the ACPI standard or (2) can work together with other devices or components in a manner defined in some version of the ACPI standard.

5. *Closest prior art*

The closest prior art is that which is acknowledged by the appellant in paragraphs [06] to [23] and Figure 1 of the application as published (in accordance with Rule 42(1)(b) EPC), and corresponding to the preamble of claim 1, *i.e.*:

A control circuit of an electronic apparatus, the circuit comprising

- input means (SUSPEND/RESUME button 3);

- input operation detection means (chip set 2) for detecting a presence or absence of a predetermined input operation by said input means; and
- state transition control means (chip set 2) for changing a state of the apparatus from a first state (normal operating state) to a second state (SUSPEND) when said input operation detection means detects an operation of said input means, and for changing the state of the apparatus to a third state (POWER SHUT-OFF) when a continuation of the operation of said means for a predetermined period (for instance, four seconds) or longer is detected, the first, second and third states being different from one another.

6. *Novelty, Article 54 EPC 1973*

6.1 *Main request*

6.1.1 *Claim 1*

Neither the prior art described in the application nor any of the documents cited in the search report or otherwise known to the board disclose the features of the characterising part of the independent apparatus claim 1, *i.e.* "nullification means for nullifying the effect of the continued operation of said input means for said predetermined period or longer so that the state of the apparatus is not changed to said third state by continued operation of said input means for said predetermined period or longer".

The subject-matter of claim 1 is, therefore, novel (Article 54 EPC 1973).

6.1.2 *Claim 8*

The subject-matter of the independent method claim 8 is novel for the same reason as given for the independent apparatus claim 1.

6.2 *First and second auxiliary request*

The independent claim 1 of both the first and the second auxiliary request contains the same "nullification means" as in the main request, and its subject-matter is, therefore, also novel.

7. *Inventive step, Article 56 EPC*

7.1 *Main request*

7.1.1 *Claim 1*

The technical effect of the "nullification means" which distinguishes the subject-matter of claim 1 from the closest prior art is that the input means are prevented from causing a change to the "third state". The appellant argues that this solves the objective problem of preventing data loss. However, this argument can not be followed by the board, as the claim does not refer to any data, either explicitly or implicitly. Instead, given the general formulation of claim 1, it is the board’s view that the objective problem which is solved should be formulated more generally, *viz.* that an unintentional transition to the third state could *possibly* have (unspecified) negative consequences.

It is very common for a given operating state of an electronic apparatus to have negative consequences, at least in some situations. If this is the case, it will, more often than not, become apparent during normal use of the apparatus and the skilled person will, naturally, try to find a remedy. The most straightforward solution would be to prevent a transition to the given operating state, *i.e.* to render ineffective any manipulation which would cause the apparatus to enter the given state. In principle, every operating state has been incorporated in the design of the apparatus for some reason, *i.e.* a transition to that state will also have some benefit(s). Therefore, the first choice for a skilled person would not be to remove permanently the circuitry that could cause a transition to the given state. Instead, he or she would foresee some special means (which could be removed or which would only have an effect in certain circumstances, for example, when some switch has been actuated) to prevent the transition from occurring. This corresponds to a standard safety mechanism, which exists, for example, as a "key lock" option on a mobile phone or a "child lock" function on a washing machine.

In the context of the above-mentioned prior art, the skilled person will, during normal use, recognise that it is not always desirable for a prolonged operation of the "SUSPEND/RESUME" button to trigger the "POWER SHUT-OFF" state. It may, for example, not be desirable in the following situations:

1. The "SUSPEND/RESUME" button was inadvertently pressed too long. The standard safety measure for such a situation is to allow the user to keep the

button pressed for an even longer time, after which it no longer has an effect, *i.e.* the state will not change.

2. The "POWER SHUT-OFF" state should (temporarily) not be triggered under any circumstance, either accidentally or voluntarily. Such a need would typically arise for an apparatus that is given to customers for demonstration purposes or that is used by children.

In both cases, the skilled person would provide means that "nullify" the effect of a prolonged operation of the "SUSPEND/RESUME" button, so that the state of the apparatus does not change to the "POWER SHUT-OFF" state. In so doing, the skilled person would arrive at the subject-matter of claim 1, which, therefore, is not inventive (Article 56 EPC).

7.1.2 *Claim 8*

The independent claim 8 contains method features that correspond to the apparatus features of claim 1. It contains no additional features. Its subject-matter is, therefore, not inventive (Article 56 EPC) for the same reasons as given for claim 1.

7.2 *First auxiliary request*

The arguments given above for the main request already apply to the specific case where a transition to the third state is caused by the operation of a suspend/resume button. The subject-matter of the independent claim 1 of the first auxiliary request is, therefore, also not inventive (Article 56 EPC).

7.3 *Second auxiliary request*

The independent claim 1 of the second auxiliary request differs from claim 1 of the first auxiliary request in that the suspend/resume signal control part comprises a capacitor having two ends, one of which being connected to the input means and the other being connected to an amplifier circuit and a power supply is connected via a resistor to the connection point of said capacitance and said amplifier circuit.

This constitutes a standard resistor–capacitor time delay circuit, which is well known to the skilled person and would be an obvious choice to implement the required time delay. According to the appellant, the circuit of claim 1 produces a signal timing the ACPI chip set efficiently with a capacitance and a resistor in order to achieve nullification of the transition to a third state function of the ACPI chip set. However, the circuit does not contain any features that are not normally present in RC time delay circuits and that would make it more efficient than other such circuits.

The subject-matter of the independent claim 1 of the second auxiliary request is, therefore, not inventive (Article 56 EPC).

8. *Conclusion*

The independent claims of all the requests lack clarity (Article 84 EPC). Furthermore, the subject-matter of the independent claims of all the requests is not

inventive (Article 56 EPC). As a consequence, none of the applicant's requests is allowable.

Order

For this reason, it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

B. Atienza Vivancos D. H. Rees