BESCHWERDEKAMMERN DES EUROPÄISCHEN PATENTAMTS	BOARDS OF APPEAL OF THE EUROPEAN PATENT OFFICE	CHAMBRES DE RECOURS DE L'OFFICE EUROPÉEN DES BREVETS

Internal distribution code:
(A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [-] To Chairmen
(D) [X] No distribution

Datasheet for the decision
of 12 February 2019

Case Number: T 0195/14 - 3.5.06

Application Number: 08103963.8

Publication Number: 1993035

IPC: G06F9/44

Language of the proceedings: EN

Title of invention:
Devices with multiple functions, and methods for switching
functions thereof

Applicant:
HTC Corporation

Headword:
Switch command/HTC

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - (no)

Decisions cited:
T 2068/14

EPA Form 3030

This datasheet is not part of the Decision.
It can be changed at any time and without notice.

Catchword:

Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 0195/14 - 3.5.06

D E C I S I O N
of Technical Board of Appeal 3.5.06
of 12 February 2019

Appellant:
(Applicant)

HTC Corporation
No. 23, Xinghua Road
Taoyuan District
Taoyuan City 330 (TW)

Representative:

2K Patentanwälte Blasberg Kewitz & Reichel
Partnerschaft mbB
Schumannstrasse 27
60325 Frankfurt am Main (DE)

Decision under appeal: **Decision of the Examining Division of the European Patent Office posted on 27 September 2013 refusing European patent application No. 08103963.8 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman   M. Müller
Members: S. Krischer
                  A. Jimenez

Summary of Facts and Submissions

I.   The appeal is directed against the decision of the
        examining division, dated 27 September 2013, to refuse
        application No. 08103963.8 for lack of inventive step
        over each of the following documents:

        D1   US 5 748 974 A1.
        D2   "iPhone", English Wikipedia, 18 January 2007,
              pages 1-7, XP2681017, downloaded on 30 July 2012
              from http://en.wikipedia.org/w/index.php?
              title=IPhone&oldid=101659370&printable=yes.

II.   A notice of appeal was received on 26 November 2013.
        The appeal fee was paid on the same day. A statement of
        grounds of appeal was received on 17 January 2014. The
        sole request dealt with in the decision was maintained
        as the main request. Claim sets according to two
        auxiliary requests were filed. "Oral proceedings only
        via video conference" were conditionally requested.

III.   In a communication dated 5 July 2018, an objection of
        lack of inventive step was raised. The appellant was
        informed that in the absence of specific reasons the
        request for oral proceedings via video conference could
        not be allowed.

IV.   In a letter dated 4 September 2018, the appellant
        submitted arguments and filed new claims according to a
        third and a fourth auxiliary request. A telephone
        interview was conditionally requested.

V.   With its summons to oral proceedings, which the board
        issued of its own motion, it gave further reasons why
        none of the claims on file appeared to show an

inventive step. The appellant was also informed that the board did not consider expedient an informal conversation (like a telephone interview) with merely one member of the board.

VI.   In a letter dated 28 December 2018, the appellant filed amended sets of claims according to a fifth and a sixth auxiliary request and arguments in favour of inventive step. It indicated that it would not attend the oral proceedings and requested "that the board reaches a decision based on the written proceedings and the arguments filed hereunder".

VII.   The oral proceedings were cancelled.

VIII.   The appellant requests that the decision be set aside and that a patent be granted on the basis of the claims according to:

        -   the main request (subject of the appealed decision) filed with letter of 15 August 2013;
        -   the first or second auxiliary requests, filed with the grounds of appeal;
        -   the third or fourth auxiliary requests, filed with letter of 4 September 2018; or
        -   the fifth or sixth auxiliary requests, filed with letter of 28 December 2018.

        The other application documents are the ones underlying the appealed decision.

IX.   Independent method claim 10 of the *main request* reads as follows:

        "10. A method for switching functions for use in a device (2000) comprising a plurality of hardware

components (2400) and a plurality of operating systems, wherein a first functional module is executed, and the hardware components are driven according [to] a first functional connecting configuration corresponding to the first functional module, wherein the first functional connecting configuration corresponds to a first hardware list, and the first hardware list records a first set of the hardware components, which are needed to be driven when the first functional module is executed, wherein the system (100) is characterized by:

    (a) receiving an input command, and determining whether to generate a switch command according to the input command;

    (b) when the switch command is generated, terminating the first functional module, storing a first operating state of the first functional module via a first system agent module, and executing the second functional module according to a second operating state of the second functional module via a second system agent module, wherein the second functional module corresponds to a second functional connecting configuration for the hardware components (2400), the second functional connecting configuration corresponds to a second hardware list, and the second hardware list records a second set of the hardware components, which are needed to be driven when the second functional module is executed; and

    (c) driving the second set of the hardware components according to the second functional connecting configuration corresponding to the second functional module; and

    (d) when the first functional module and the second functional module are respectively executed,

driving the hardware components 2400 according to
the first functional connecting configuration and
the second functional connecting configuration,
respectively, via different operating systems."

X.   Independent method claim 11 of the *first auxiliary
        request* differs from claim 10 of the main request in
        that step (d) is replaced by the following wording:

        "wherein selection for the functional modules via a
        specific menu is not required."

XI.   Claim 11 of the *second auxiliary request* differs from
        that of the first auxiliary request in that the
        following wording is added before "wherein the system
        (100) is characterized by":

        "wherein the device (2000) comprises a storage unit
        (2500) comprises [sic] a plurality of applications
        (2550), and wherein the first functional module
        comprises a first application list (2513),"

        and in that at the end of step (b) the following is
        added:

        "and wherein the second functional module comprises
        a second application list; and",

        and in that step (c) reads (additions with respect to
        claim 11 of the first auxiliary request are
        underlined):

        "(c) driving the second set of the hardware
        components according to the second functional
        connecting configuration corresponding to the

second functional module; <u>and enabling the</u>
<u>applications listed in the second application list</u>
wherein selection for the functional modules via a
specific menu is not required".

XII.   The *third auxiliary request* erroneously contains two
         claims 9. Of these, independent method claim 9 differs
         from claim 11 of the first auxiliary request in that
         the claim begins with (additions are <u>underlined</u>):

         "9. A method for switching functions for use in a
         device (2000) comprising a plurality of hardware
         components (2400) <u>and a plurality of operating</u>
         <u>systems,</u> wherein a first functional module is
         executed, ..."

         and in that the end of the claim reads:

         "wherein selection for [sic] the functional modules
         via a specific menu is not required, <u>and the</u>
         <u>hardware components 2400 are driven according to</u>
         <u>the first functional connecting configuration and</u>
         <u>the second functional connecting configuration,</u>
         <u>respectively via different operating systems</u>."

XIII.   Claim 11 of the *fourth auxiliary request* differs from
         that of the first auxiliary request in that the claim
         begins with (additions are <u>underlined</u>):

         "11. A method for switching functions for use in a
         device (2000) <u>comprising storage unit (2500) having</u>
         <u>a plurality of applications (2550)</u>,"

         and in that the following wording is added before
         "wherein the system (100) is characterized by":

"further comprising a first operating state and a
first application list (2513), referring to one or
more of the applications (2550) corresponding to
the first functional module,"

and in that steps (b) and (c) read:

"(b) when the switch command is generated,
terminating the first functional module, storing
the first operating state of the first functional
module via a first system agent module, and
executing a second functional module according to a
second operating state of the second functional
module via a second system agent module, wherein
the second functional module corresponds to a
second functional connecting configuration among
the hardware components (2400), the second
functional connecting configuration corresponds to
a second hardware list, and the second hardware
list records a second set of the hardware
components, which are needed to be driven when the
second functional module is executed, and wherein
the second functional module comprises a second
application list, referring to one or more of the
applications (2550) corresponding to the second
functional module; and
(c) driving the second set of the hardware
components according to the second functional
connecting configuration corresponding to the
second functional module; and enabling the
applications listed in the second application list,
allowing direct switching and execution, without
selection via a specific menu."

XIV.   Claim 11 of the *fifth auxiliary request* differs from
       that of the second auxiliary request in that the claim
       begins with (additions are <u>underlined</u>):

       "11. A method for switching functions for use in a
       device (2000) comprising a plurality of hardware
       components (2400) <u>and a plurality of operating
       systems</u>, wherein a first functional module is
       executed, ..."

       and in that at the end of step (c) the following is
       added:

       "and the hardware components 2400 are driven
       according to the first functional connecting
       configuration and the second functional connecting
       configuration, respectively via different operating
       systems."

XV.   Claim 11 of the *sixth auxiliary request* differs from
       that of the fourth auxiliary request in that the claim
       begins with (additions are <u>underlined</u>):

       "11. A method for switching functions for use in a
       device (2000) comprising storage unit (2500) having
       a plurality of applications (2550), comprising a
       plurality of hardware components (2400) <u>and a
       plurality of operating systems</u>, wherein a first
       functional module is executed, ..."

       and in that at the end of step (c) the same wording is
       added as for the fifth auxiliary request.

Reasons for the Decision

1.   *Oral proceedings as video conference*

        The appellant requested that the oral proceedings be
        held as a video conference. It did not, however,
        provide any specific reason for its request. With its
        communication of 5 July 2018, the board pointed out
        that, under these circumstances, it could not grant the
        request, for the same reasons as those given in its
        earlier decision T 2068/14 (see in particular
        point 1.2.5, last three sentences). The appellant did
        not provide further arguments on this point.

2.   *Summary of the invention*

        The claimed invention relates to switching the software
        ("functional module") currently running on a device.
        The device includes a computer (see figure 2: processor
        2300, storage 2500, input device 2100, display 2200)
        and specific hardware components (such as mobile phone,
        GPS or camera hardware, see [25]). Each functional
        module program "drives" a set of hardware components
        ("functional connecting configuration") for one or more
        functions (see [25], sixth sentence: "For example, the
        communication and image capturing capabilities can be
        integrated into one functional module, or the global
        positioning and media playback capabilities can be
        integrated into one functional module.").
           For example, in order to switch from the mobile
        phone function to the camera function, the user enters
        an input command (via a touch-screen, a direction
        sensor, a voice reception unit or a hot key; see [35]-
        [39]; figure 4: S4010). Then it is determined whether

the input command is a switch command ("determining whether to generate a switch command according to the input command" in the slightly unclear wording of the claims and of [34], fourth sentence; figure 4: S4030). If yes, the phone software (first functional module) is terminated (S4050), its operating state is stored (S4040; in order to be resumed the next time, [27]), the camera software (second functional module) is started (figure 4: S4060), and the corresponding hardware components are driven (S4070), possibly by a different (dedicated) operating system than that used during the phone function; see original claim 3 and the following three last sentences of [28]:

> "In some embodiments, the hardware components can be driven via a common operating system when respective functional modules are executed. In some embodiments, the hardware components can be respectively driven via dedicated operating systems for respective functional modules. That is, the device 2000 may comprise several operating systems."

This passage is the only one in the application disclosing this use of different operating systems.

3.   *Inventiveness*

3.1   The board will discuss the case with respect to the method (see for example claim 10 of the main request and figure 4). The same arguments hold for the corresponding device (claim 1).

3.2   The board agrees with the decision that the claimed subject-matter is not inventive, but uses a different reasoning.

3.3   The technical problem as disclosed in the description
        is to avoid issuing a second command in order to start
        the second functional module program, after having
        exited the first function module program via a first
        command, but to *switch directly* from the first
        functional module program to the second functional
        module program with one command only, i.e. without
        returning to the user interface (also called "specific
        menu", see 130 in figure 1) and selecting thereon the
        second functional module; see [3], first, second,
        eighth and ninth sentences; [4]; [32], second sentence;
        [40], first and second sentences. This conventional
        (i.e. prior art) mechanism is said to be inconvenient
        for the user ([4], second sentence). The application is
        said to allow "to efficiently and instinctively switch
        among the functional modules" (third sentence).

3.4   The solution consists in allowing the user to enter a
        command which triggers both, the terminating of the
        first functional module program and the starting of the
        second functional module program, at the same time.

3.5   However, providing a command which combines two former
        commands is not considered to involve an inventive
        step. It is an elementary idea of programming to
        combine commands so that they can be called together,
        and a programmer would find it obvious to combine the
        two mentioned commands into one in order to spare the
        user the effort of issuing them separately.

3.6   As differences between the independent claims of the
        main request and the prior art at hand (D1 and D2), the
        appealed decision (section 2.3.3) and the grounds of
        appeal (page 4, second sentence to end of second
        paragraph) identify the feature of using a different

operating system for each of the two functional module programs. This feature was neither present in the original independent claims nor mentioned in the technical problem disclosed in the original description (see above).

3.7   The board considers this feature to be independent of the number of input commands to enter in order to trigger a program switching. Therefore, a second technical problem is formulated as follows: The use of two operating systems in one device solves the technical problem of *integrating two computers with specific peripheral hardware* (e.g. a mobile phone and a digital camera) *into one computer* (e.g. a multifunctional handheld device, [2]).

3.8   Since the peripheral hardware may be very different, the operating systems of the two devices may also be very different. The programmer would have two possibilities to integrate the operating systems of the two computers into one computer: either to program (or pick) a new operating system (capable of driving the different peripheral hardware) or to provide the two operating systems on the single computer. He or she would obviously select one of the possibilities according the circumstances. The description itself appears to suggest as much when its states ([28], sixth and seventh sentences) that "[i]n some embodiments, the hardware components can be driven via a common operating system when respective functional modules are executed. In some embodiments, the hardware components can be respectively driven via dedicated operating systems for respective functional modules."
In the board's opinion, no inventive step is needed to do so.

3.9   As to the differentiating feature of the invention
        being based on the *context change of hardware devices,*
        in contrast to a usual context switch of processes (see
        grounds of appeal, page 3, last sentence to page 4,
        first sentence), the board agrees with the appellant
        that the invention does not relate to a context switch
        of processes since the operating system is changed
        during the switch of the functional module programs.

3.10   However, driving the hardware devices which are *needed*
        for a specific program, such as the second functional
        module (see claim 10, end of step (b) and step (c)), is
        an obvious necessity so that the second functional
        module program can perform its function by using the
        hardware devices. Therefore, the skilled programmer
        would obviously program the software so that it drives
        the necessary hardware devices. Thus, this feature is
        not considered to contribute to an inventive step
        either.

3.11   As to the *first auxiliary request*, the additional
        feature in independent method claim 11 merely
        explicitly states that no specific menu is required for
        the program switching. This has already been considered
        in the discussion above (see points 3.3-3.5).

3.12   The additional feature in claim 11 of the *second
        auxiliary request* relates to enabling applications from
        an application list of the second application module
        when the second application module program runs.
        According to [40], third sentence, the feature reads
        "the applications ... are *enabled to be called up and
        used during the execution of the second functional
        module* according to the application list corresponding
        to the second functional module" (emphasis added). In

[29], seventh sentence, examples are given, namely that an application for downloading maps can only be called up "by" the GPS functional module program, and an application for changing the setting of the display can be called up "by" any functional modules. The word "by" is interpreted as "during execution of" like in the preceding citation.

3.13   In its grounds of appeal, the appellant did not submit any argument as to why this additional feature would establish an inventive step. It is notorious that different programs offer different specific sets of functions: for example, a word processing program could offer "spell-checking" whereas a mathematical program would not. Such functions fall within what the invention calls "applications". Furthermore, it is obvious to enable the functions (i.e. applications) offered by a "functional module" along with it. Therefore, no inventive step is recognised in the second auxiliary request.

3.14   The independent claims of auxiliary requests 3-6 are not materially different from those of the main request and the second auxiliary request, respectively, which have been discussed above. More specifically, auxiliary requests 3, 5 and 6 merely clarify the use of multiple operating systems and driving the hardware components according to a first and a second functional connecting configuration. These features, however, were already contained in claim 10 of the main request (step (d)) and considered in that context. Auxiliary request 4 specifies that each "functional connecting configu-ration" also contains an associated "application list" which has been addressed in section 3.12 above, with respect to the second auxiliary request.

Therefore, the arguments above apply accordingly to these requests.

3.15   According to its letter dated 4 September 2018 (page 2, paragraph 5), the appellant takes the board as having argued (in section 7 of its communication dated 5 July 2018) that multiple operating systems were not disclosed in the independent claims. However, this section only stated that the relevance of multiple operating systems had not been mentioned in the originally claimed problem statement disclosed in the description (and summarised in section 4 of the communication; see also section 3.3 above). Having said that, the board does not doubt that the use of multiple operating systems is specified in the independent claims of the main request and auxiliary requests 3, 5 and 6, but notes that multiple operating systems are not mentioned in the independent claims of auxiliary requests 1, 2 and 4.

3.16   The board considers that the notorious knowledge in the art assumed in its argument under point 3.13 is so elementary that it does not require written evidence, which the appellant had requested (see its letter dated 4 September 2018, page 6, first paragraph).

3.17   For the same reason, the board does not consider necessary "a proper search" in the field of switching operating systems, as requested by the appellant (see page 6, first paragraph of the letter).

3.18   Thus, the subject-matter of the independent method claims of all requests is not inventive within the meaning of Article 56 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

L. Stridde   Martin Müller

Decision electronically authenticated