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Datasheet for the decision of 3 April 2014

Case Number: T 0160/10 - 3.5.04

Application Number: 99905540.3

Publication Number: 1057322

IPC: H04N5/222, H04N5/76, H04N5/232

Language of the proceedings: EN

Title of invention:
SYSTEM AND METHOD FOR DYNAMICALLY UPDATING FEATURES IN AN ELECTRONIC IMAGING DEVICE

Applicant:
FlashPoint Technology, Inc.

Headword:

Relevant legal provisions:
EPC 1973 Art. 56

Keyword:
Inventive step - (no)

Decisions cited:

Catchword:

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Case Number: T 0160/10 - 3.5.04

D E C I S I O N
of Technical Board of Appeal 3.5.04
of 3 April 2014

Appellant: (Applicant)	FlashPoint Technology, Inc. 152 N. Third Street, No. 800 San Jose, CA 95112 (US)
Representative:	Brookes Batchellor LLP 46 Chancery Lane London WC2A 1JE (GB)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 10 September 2009 refusing European patent application No. 99905540.3 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman: F. Edlinger
Members: C. Kunzelmann
T. Karamanli

Summary of Facts and Submissions

I. The appeal is against the decision of the examining division to refuse European patent application No. 99 905 540.3 under Article 97(2) of the European Patent Convention (EPC). The application had been filed as international application PCT/US99/01971 and published as WO 99/44360 A1.

II. In the first-instance proceedings examination was initially carried out on the basis of the application as published. The applicant did not submit the claims as published to the examining division. With letter of 8 December 2005, the applicant submitted claims 1 to 32 to the examining division. Claims 24, 28 and 32 were later withdrawn. The decision under appeal was taken on the basis of claims 1 to 23, 25 to 27 and 29 to 31 filed with letter of 8 December 2005. Claim 1 filed with letter of 8 December 2005 was not amended in the first-instance proceedings.

III. The following prior-art documents relevant for the present decision were referred to in the first-instance proceedings:

D1: US 5 477 264 A and

D2: PCMCIA for PowerBook 500 Series Computers, retrieved from the internet on 31 July 1997, URL HTTP://PRODUCT.INFO.APPLE.COM/PRODUCTINFO/FACTSHEETS/PCMCIA.HTM; XP 002917569.

IV. The application was refused *inter alia* on the ground that the subject-matter of the independent claims 1, 13 and 23 did not involve an inventive step (Article 56 EPC) having regard to document D2.

V. Claim 1 as filed with letter of 8 December 2005 reads as follows:

"A system for dynamically updating software functions in an electronic imaging device supporting a removable memory device, the removable memory device containing at least one new software function and menu information relating to the at least one new software function, the system comprising:
a data processor having a dynamic menu organization structure for displaying the software functions currently supported by the electronic imaging device in a menu; and
a menu configuration code for dynamically updating the dynamic menu organization data structure using the menu information in response to detecting the at least one new software function on the removable memory device, wherein the at least one new software function may be displayed in the menu for selection,
characterised in that after insertion of the removable memory device containing the at least one new software function, said menu configuration code dynamically is configured to allow updating of the dynamic menu organization data structure while the electronic imaging device is operating thereby allowing the software functions displayed in the menu to be updated without rebooting the electronic imaging device."

VI. The applicant appealed. In the statement of grounds of appeal the appellant submitted arguments as to why the reasons for the decision under appeal were considered to be incorrect.

VII. The board issued a communication pursuant to Article 15(1) of the Rules of Procedure of the Boards

of Appeal (RPBA), annexed to a summons to oral proceedings dated 16 January 2014. In this communication the board, referring to D1 and D2, expressed the provisional opinion that the examining division was correct in its finding that the system of claim 1 did not involve an inventive step.

VIII. The appellant filed a letter of reply dated 3 March 2014 comprising arguments relating to the decision under appeal and the board's preliminary opinion. In a further letter dated 27 March 2014 the representative announced that the appellant would not be represented at the oral proceedings.

IX. The board held oral proceedings on 3 April 2014 in the the appellant's absence, in application of Rule 71(2) EPC 1973 and Article 15(3) RPBA. In the oral proceedings the Chairman noted that the appellant had requested in writing that the decision under appeal be set aside and that a patent be granted "in accordance with one of the Applicant's Requests as submitted to the Examining Division". At the end of the oral proceedings the chairman announced the board's decision.

X. The reasons for the decision under appeal may be summarised as follows, as far as they are based on document D2:

The term "electronic imaging device" in claim 1 encompassed a variety of electronic devices such as image capturing devices (cameras, scanners, etc.) and electronic image output devices (printers, displays, systems comprising a display and/or a printer, etc.). Moreover, the term "software function" encompassed software (drivers, API) for a hardware function.

D2 disclosed a system for dynamically updating software functions in an electronic imaging device, namely a computer. The computer supported a removable memory device, in particular a PCMCIA memory card (PC Card). The memory card could hold application software or system software. D2 did not explicitly disclose dynamic configuration of a menu configuration code. However, the computer was able to detect insertion of the PC Card containing a new software function and to dynamically adapt the menu to display the new software function without rebooting the computer. When a PC Card was inserted an icon appeared on the computer screen. This constituted a dynamic configuration of a menu configuration, because for an icon to appear on a screen a particular data structure needed to be stored in a particular location in the operating system structure. This part of the operating system structure could be referred to as a menu organisation data structure. Moreover, a user could add or remove software applications as desired. Thus the graphical user interface (GUI) of the computer implied a menu configuration code which was able to cope with these dynamic user modifications. Thus the subject-matter of claim 1 was an obvious extension of the teaching of D2 and hence lacked an inventive step over D2.

XI. The appellant's arguments may be summarised as follows:

The invention related to a digital camera and dynamically updating software features on the digital camera. Hence it provided for changing a version of an application program without having to reinitialise the application program or reboot the digital camera. The invention solved the problem of providing additional software functionality to the application programs

loaded on an imaging device without having to reboot the imaging device. None of the cited references disclosed the features of displaying software functions on a digital camera, or updating a dynamic menu structure to display the software functions on a digital camera, without rebooting it. Moreover, none of the cited references disclosed that, when a removable memory device was inserted in an imaging device, a dynamic menu data structure was updated with additional software functions while the imaging device was operating.

In the computer of D2, an expansion module (including basic driver software enabling the computer to accommodate PC Cards) had to be installed prior to being able to insert PC Cards. This installation required rebooting of the computer. Moreover D2 did not disclose that this installation updated a dynamic menu data structure of the computer with additional software functions. When a user of the computer of D2 clicked on an icon, he/she did not engage any type of software but instead hardware denoted by the icon. The PC Cards in D2 were used to change the hardware operations of the computer, not software operations.
Prior to the present invention removable memory devices, including PC Cards, were inserted into a bus connector on a powered-on and operating computer. Software programs on the PC Cards were loaded from the PC Cards and executed without rebooting the computer. But the software programs were not used to change the application programs loaded on the operating computer. If an application program required changes or the addition of features, it required reinitialisation and rebooting of the computer. The removing and switching of PC Cards in the computer without restarting the computer in D2 related only to the problem of the

present invention. In D2 only the installation of the expansion modules (including the associated software) suggested modifying the application program loaded on the operating computer. Running an application off a PC Card did not relate to the problem solved by the invention.

In D1 the method of adding software algorithms to a digital camera started when the digital camera was turned on, but the algorithms were applied later. Thus the adding of software algorithms to existing ones in the camera started after the digital camera had been powered on. D1 did not disclose updating a menu of available software features with the new software function stored in the removable memory without rebooting the digital camera after insertion of the removable memory. It was not clear how the teachings of D1, i.e. a digital camera, were related to PCMCIA expansion modules for a computer (as in D2).

Reasons for the Decision

1. The appeal is admissible.

The appellant's requests

2. All the claim sets "submitted to" the examining division include claim 1 in the version underlying the decision under appeal (see points II and V above). No claims of any further requests were submitted during the appeal proceedings. Thus, the appellant's request expressed in the notice of appeal "to issue an order to grant a European patent in accordance with one of the Applicant's Requests as submitted to the Examining Division or based on such further Requests as may be submitted ..." does not refer to any other claim 1 than that considered in the decision under appeal. The allowability of this claim 1 is therefore the decisive issue in the present case.

The decision under appeal

3. The examining division considered that the subject-matter of claim 1 differed from D2 only in that D2 did not explicitly disclose dynamic configuration of a menu configuration code. However, the subject-matter of claim 1 comprising such features was an obvious extension of the teaching of D2 and hence lacked an inventive step (see point X above).

4. In the board's view, the examining division was correct in its finding that the system of claim 1 did not involve an inventive step. The appellant's arguments did not convince the board for the following reasons.

4.1 The appellant in effect disputes that the characterising portion of claim 1 of the present application is disclosed in D2. According to the appellant, no prior art disclosed or suggested providing additional software functionality to the application programs loaded on an imaging device, thereby allowing new software functions to be displayed without rebooting the digital camera (see point XI above).

4.2 In D2, insertion of the removable memory device (i.e. a PC Card) is possible without disruption of the user's work, in particular without restarting the computer. Insertion of the removable memory device containing the new software function (such as an application) results in an icon appearing on the screen while the computer is operating. In particular, icons for PC Cards appear in the same way that floppy disk icons do. Rebooting the system is not necessary (see D2, page 3, second bullet point: "no disruptions"; "without restarting your system").
Moreover, D2 stresses the computer's seamless integration of hardware and software and the advantage of true "plug-and-play" capability when using PC Cards. There are no compatibility conflicts, and no system reconfigurations are required to be able to use PC Cards (see D2, pages 2 and 3, bridging paragraph). Under these circumstances a person skilled in the art would have expected that the display of menus representing the software functions stored on the PC Card would also not require rebooting of the computer.

4.3 It is true that D2 does not disclose that icons of applications stored on the PC Card are automatically displayed when the removable memory device is inserted.

It is conceivable that upon insertion the hardware is represented by an icon and that it is only upon user selection of the hardware icon that the stored software is identified and the corresponding icons are displayed.
However, at the filing date of the present application it was common for computer GUIs to have icons which could be opened (such as by double-clicking) and then revealed folders, files, applications, etc. which would be appropriately represented (for instance, by icons or in the form of lists or menus). Thus a person skilled in the art would have expected that opening the icon in D2 would allow application(s) stored on the removable memory device to be selected and opened.
Moreover, claim 1 of the present application does not specify when and how the at least one new software function on the removable memory device is detected and displayed.

4.4 It is clear from the present application (see, for instance, page 12, line 22, to page 13, line 6) that the expression "dynamically updating software functions" encompasses adding software functions. In such a case corresponding software code is loaded from the removable memory device into the camera's DRAM upon the user selecting the software function (page 15, lines 1 to 9). Claim 1 thus does not limit the "new software function" to one which is included into an application program already loaded on the imaging device to thereby change the loaded program or create a new version. In view of the broad meaning of the expression "dynamically updating software functions", claim 1 covers the running of the software function off the removable memory device. In this respect the board agrees with the finding in the paragraph bridging pages 5 and 6 of the decision under appeal.

4.5 Therefore, the board does not agree with the appellant that D2 relates only to the problem the present invention is attempting to solve (but does not provide a solution). While the present application (page 2, paragraph 2) sets out that one of the limitations of the prior art was that changing the version of the application program or adding features via modularised code to the application program required reinitialising and rebooting, claim 1 is not limited to this kind of software functions. Moreover, the fact that D2 discloses the use of an expansion module (including basic driver software enabling the computer to accommodate PC Cards) in the computer of D2 prior to being able to insert PC Cards does not change the board's finding. D2 does not disclose whether insertion of the expansion module requires rebooting of the computer, and indeed such a need to reboot would be expected. But even so, the "plug-and-play" capability and the seamless integration of software and hardware (see point 4.2 above) are features of the thus expanded computer (and the appropriate PC Cards) once the expansion module is installed.

4.6 Finally, the appellant consistently argued that the invention related to a digital camera. In this context the board agrees with the decision under appeal, which construed the expression "electronic imaging device" in claim 1 to encompass electronic image capturing devices (cameras, scanners, etc.) and electronic image output devices (printers, displays, systems comprising a display and/or a printer, etc.). Even if the electronic imaging device in claim 1 were construed as relating to a digital camera, this argument did not convince the board since the use of PC Cards in cameras was already known.

4.7 D1 is cited in the description of the present application. According to D1 application programs and algorithms may be imported into the digital electronic camera (see page 1, lines 17 to 26, of the present application). In particular, according to D1 such application programs are stored on memory cards adapted to the PC Card standard (see, for instance, D1, column 6, lines 45 to 66). New application programs (called "software enhancements" in D1) may be identified on the operation display of the camera, which is controlled by the camera's control processor 20 (see figure 2 and column 7, lines 15 to 50). Several enhancements may be stored on a PC Card for download to the camera's RAM instruction memory (see D1, column 7, line 51, to column 8, line 3). A person skilled in the art would have considered displaying the downloadable application programs in the form of menus, in particular when taking into account that the PC Cards may be removed from the camera and inserted into the card reader of a computer (see D1, column 8, lines 4 to 22).

5. In view of the above, the board considers that the decision under appeal was correct and that the appeal is to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

K. Boelicke F. Edlinger

Decision electronically authenticated