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Datasheet for the decision of 9 June 2008

Case Number: T 1200/04 - 3.5.04

Application Number: 98909826.4

Publication Number: 0998140

IPC: H04N 5/225

Language of the proceedings: EN

Title of invention:
Method for adding digital camera function and digital camera

Applicant:
Seiko Epson Corporation

Opponent:
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Headword:
-

Relevant legal provisions:
-

Relevant legal provisions (EPC 1973):
EPC Art. 56

Keyword:
"Inventive step (no)"

Decisions cited:
-

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 1200/04 **-** 3.5.04

D E C I S I O N
of the Technical Board of Appeal 3.5.04
of 9 June 2008

Appellant: Seiko Epson Corporation
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 11 May 2004 refusing European application No. 98909826.4 pursuant to Article 97(1) EPC.**

Composition of the Board:

Chairman: F. Edlinger
Members: A. Dumont
B. Müller

Summary of Facts and Submissions

I. The appeal is directed against the decision by the examining division to refuse European patent application No. 98 909 826.4.

II. The examining division decided that the subject-matter of the independent claims then on file lacked an inventive step in view of common general knowledge and the following document:

D2: Patent Abstracts of Japan, vol. 1997, no. 06, 30 June 1997 & JP 09 046577 A.

The examining division relied on the computer-generated English translation of D2 available at the internet site of the Japanese Patent Office, referred to as D2' in the following.

III. With the statement of grounds of appeal the appellant filed new claims of a main request and a first auxiliary request and submitted a copy of decision T 939/92 in support of the argument that the examining division should have provided evidence for the common general knowledge regarding the request-to-send program command.

IV. The board sent a communication accompanying the summons to oral proceedings and setting out a provisional opinion drawing attention to well-known aspects of requesting services in data communication and attached a copy of the following textbook extract:

D10: A.S.TANENBAUM, Computer networks, second edition, Prentice Hall, 1989, pages 22 to 27.

V. In reply the appellant submitted new claims 1 to 10 of a "2nd Auxiliary Request" with a letter dated 9 May 2008.

VI. During the oral proceedings held on 9 June 2008 before the board the appellant withdrew the main and first auxiliary requests which had been submitted with the statement of grounds of appeal and maintained the second auxiliary request as his sole request.

He requested that the decision under appeal be set aside and that a patent be granted in the following version:

Claims 1 to 10 filed with letter dated 9 May 2008 (the then "2nd Auxiliary Request") and
the description and drawings of the application documents forming the basis of the decision under appeal.

VII. Claim 1 according to the sole request reads as follows:

"A function appending method for a digital camera which records image data by converting an image pickup light photoelectrically, comprising the steps of:

a first process including:
selecting program installing at the digital camera (S1);
waiting for a program transmitting command from the external recording medium (S4);

receiving the program transmitting command from the external recording medium (S4);
transmitting a request-to-send program command to the external recording medium (S4);
receiving a program recorded on an external recording medium therefrom via a communication line (S6); and
storing the program into a recording medium provided in the digital camera (S8);

a second process of reading out the program from the recording medium in the digital camera at a desired time and then executing the read out program; and

a third process of deleting a desired program from the recording medium in the digital camera;
wherein the write inhibit flag of the desired program is replaced with a write enable flag."

Claims 2 to 5 are dependent on claim 1 and claims 6 to 10 relate to a digital camera.

VIII. The relevant argumentation in the decision under appeal may be summarised as follows.

D2 discloses a function appending method for a digital camera with a first process consisting in downloading and storing a program from an external recording medium into the memory of the digital camera and a second process of reading out and executing the program. During the first process a communication path is established between the digital camera and the external recording medium, with the camera waiting for a command from the external recording medium, performing various checks upon its reception and sending out an error

signal if a preparatory communication (state 21 in figure 2; figure 3) is not successful. The external recording medium proceeds to the upload of the program via a communication line if it does not receive an error signal. It would be an obvious design option for the camera to actively transmit a request-to-send program command in cases where no error is detected in the preparatory communication. Such a handshaking mechanism is common general knowledge, see for instance the RS-232C standard cited on page 1 of the present application, which uses a pair of commands (request-to-send (RTS) and clear-to-send (CTS)) to establish communication between two terminal equipments. Therefore the subject-matter of claim 1 then on file was not inventive.

For the reasons set out in the annex to the summons to oral proceedings, the provision of a write inhibit flag of claim 2 then on file (the features of the third process of present claim 1) is a matter of common general knowledge in order to protect stored data or programs from being accidentally erased or overwritten.

IX. The relevant argumentation by the appellant may be summarised as follows.

D2 discloses the camera transmitting an error signal only when an error is detected. It does not disclose the provision of a request-to-send program command in the case of an error-free preparatory communication, which command ensures that the camera is in an appropriate state prior to reception of program data because it is issued from and transmitted by the camera. The RS-232C standard referred to in the decision under

appeal is common general knowledge in the field of computers, but it is remote from the specific field of digital cameras.

The provision of the third process of deleting a program from the camera memory simply by toggling a flag (write inhibit/write enable), according to the last two paragraphs of claim 1, allows for a simple, energy-efficient method of freeing memory space for adding new functions, compared to a method consisting in overwriting each memory cell. The method may be known in the field of computers, but it is remote from the field of digital cameras.

In conclusion, applying to the field of digital cameras measures known from a remote field, namely that of computers or telephone networks, would be obvious only with impermissible hindsight and the subject-matter of claim 1 thus involves an inventive step.

Reasons for the Decision

1. The appeal is admissible.

2. The appellant has acknowledged that D2 discloses a function appending method for a digital camera with a first and a second process according to claim 1, however without the step of transmitting a request-to-send program command to the external recording medium. The board concurs that D2 discloses the method steps of waiting for and receiving a "program transmitting command", as specified in claim 1, but not the reply by

the camera ("request-to-send program command" in claim 1) according to a handshaking mechanism.

The appellant argues that this mechanism is common general knowledge only in computer technology or telephone networks. However both the present invention (see figure 2(a)) and D2 ("a program downloads from an external instrument like a computer ... to an imaging device" in paragraph [0009] of D2') relate to data transmission between a camera and a computer. D2 also lists communication protocols, such as IrDA or TCP/IP (see paragraph [0022] of D2'), which are well-known standards, in particular in the field of computer network technology. In a method where a program recorded on an external recording medium (computer as in D2) is transferred to a digital camera, computer network technology for communication with the camera is regarded by the board as the relevant technical field at the priority date of the present application. The essential question concerning the common general knowledge in the present case is thus one of the relevant technical field rather than a question of evidence which has to be provided for facts which were no longer contested as such in the oral proceedings. The board therefore sees no necessity to go into details disclosed in D10, nor to comment on the case law cited by the appellant.

In the judgment of the board, implementing a handshaking service with a pair of commands (request/response), well-known in computer technolgy, was an obvious step, for instance using the RS-232C standard, in order to increase communication reliability.

3. The board agrees that D2 does not disclose the provision of the third process of deleting a program by replacing a flag according to the last two paragraphs of claim 1. However D2 mentions an "elimination function" for a program stored in the memory integrated in the camera (see paragraph [0024] of D2') as well as the advantages of reducing the size and price of the integrated memory resulting from the possibility of downloading programs from an external device when needed (see paragraph [0025] of D2'). As a result D2 hints at including a third process of deleting a program from the camera memory to achieve these advantages.

The appellant acknowledges that using a flag (write inhibit/write enable) to identify free memory locations was well-known in the field of computer memory management in order to protect against accidental deletion. As already noted in the foregoing section, computer technology was the relevant technical field in the present case for communication between digital cameras and external (computer) devices. Furthermore, figure 1 of D2 depicts a computer-like internal architecture of the camera (10-a), with a CPU (13), RAM memory (14) and ancillary circuits communicating over data buses (12-a, 12-b) (see also paragraphs [0011] and [0012] of D2').

The board is therefore of the opinion that a person skilled in the art would routinely have implemented techniques of computer memory management in the digital camera according to D2, in particular the inclusion of a third process as specified in claim 1 providing for a

flag identifying free memory locations in order to achieve the same advantage, namely to prevent accidental deletion.

4. In conclusion, the board judges that it was obvious for a person skilled in the art starting from D2 to routinely apply techniques known in the field of computers to the field of digital cameras. Thus the subject-matter of claim 1 does not involve an inventive step (Article 56 EPC 1973). Since claim 1 of the sole request is not allowable independent claim 6 and the dependent claims need not be dealt with.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar The Chairman

D. Sauter F. Edlinger