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Datasheet for the decision of 4 May 2007

Case Number: T 1070/04 - 3.5.04

Application Number: 00968170.1

Publication Number: 1245114

IPC: H04N 7/18

Language of the proceedings: EN

Title of invention:
Method and system for video monitoring

Applicant:
Nokia Corporation

Opponent:
-

Headword:
-

Relevant legal provisions:
EPC Art. 54, 56

Keyword:
"Novelty (yes), inventive step (yes) after amendment"

Decisions cited:
-

Catchword:
-

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Case Number: T 1070/04 - 3.5.04

D E C I S I O N
of the Technical Board of Appeal 3.5.04
of 4 May 2007

Appellant: Nokia Corporation
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 24 March 2004 refusing European application No. 00968170.1 pursuant to Article 97(1) EPC.**

Composition of the Board:

Chairman: F. Edlinger
Members: C. Kunzelmann
B. Müller

Summary of Facts and Submissions

I. The appeal is against the decision of the examining division to refuse European patent application No. 00 968 170.1 (published as international application WO 01/31925).

II. The appellant filed claims of a main request and seven auxiliary requests with the statement of grounds of appeal.

III. In response to a summons to attend oral proceedings, the appellant filed new claims 1 to 12 of a main request and description pages 3 and 4 with a letter dated 8 March 2007. In response to a telephone conversation with the rapporteur, the appellant filed with a letter dated 4 April 2007 new claims 10 to 12 of the main request and description pages 2a and 3. The appellant also submitted a list of the documents on the basis of which the grant of a patent was requested.

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

Claim 1:

"A method of monitoring a site (101) from a remote location, comprising:
generating (301) *by a video camera (104)* a video signal of the site (101);
storing (301) the video signal in a *video* server (105) at the site (101);
in response (302) to an alarm signal, said alarm signal generated upon detection of an event at the site (101),

establishing (303) a wireless connection *for transfer of video signal* between the site (101) and a display device (111) located at the remote location and, while continuing storing the video signal, also transferring (304) the video signal from the site (101) to the display device (111) at the remote location over said wireless connection;
controlling transfer of further video signal from the site (101) to the display device (111) by sending control signals from the display device to the video server (105);
and
in response (306) to *the* control signals received from *the display device (111)*, transferring (307) a portion of the stored video signal to the display device (111) at the remote location, where said portion of stored video signal having been generated during a time period at least partly covering time prior to said alarm signal."

Claim 11:

"A system for monitoring a site from a remote location, comprising:
at the site (101): at least one detector (102) for providing an alarm signal (103), at least one video camera (104) providing a video signal, and a video server (105) *arranged to receive the video signal* for storage and transmission to at least one remote location,
means (107, 110) for providing a wireless link *for transmission of video signal* between the site (101) and the remote location in response to a alarm signal, and

at the remote location, means for receiving the video signal from the site (101), a display for displaying said video signal to a user, and control means for a user to *control transfer of at least a portion of the video signal stored in the video server (105) to the remote location over the wireless link by sending control signals from the display device to the video server (105), the control signals corresponding to selection of at least one video server control function on the display device and said portion of stored video signal having been generated during a time period at least partly covering time prior to said alarm signal.*"

[The amendments made in appeal proceedings to the independent claims of the main request on which the decision under appeal was based are indicated in italics.]

V. Claims 2 to 10 are dependent on claim 1, and claim 12 is dependent on claim 11.

VI. The decision under appeal referred in the reasons to document

D1: WO 97/41686 A1

and can be summarised as follows.

Claim 1 was worded so broadly that its subject-matter lacked novelty or at least inventive step over D1, which disclosed cameras at a site, local storage at the site, wireless transmission of images from the site to a remote location, and display at the remote location. D1 also disclosed that the transmitted images could be

generated prior to a request or alarm signal. In D1 images were taken in intervals and could be considered as video signals. D1 disclosed a request for retransmission of images in the event of an interruption of the wireless channel. Furthermore a continued monitoring by renewed establishment of the wireless link disclosed in D1 indicated a control signal for transferring portions of the video. It was obvious to the skilled person that television-frequency images should be sent if the bandwidth and storage capacities were available. The same objection applied to claim 11.

VII. The appellant argued essentially as follows.

In the application a video signal of the site was continuously generated by a video camera and stored in a video server located at the site. Detection of an event at the site generated an alarm signal which triggered a wireless transmission of live video signal to a remote display device while storing of the video signal in the video server continued. The display device was so configured that its user could send video server control signals triggering the transfer of stored video signals covering a period of time prior to the alarm to the display device. Thus in case of an alarm the user was provided with a live presentation of the site and was able to fetch an additional video clip showing the event triggering the alarm, thus assisting the user in deciding what to do in an alarm situation.

D1 disclosed a system for monitoring a mobile ground-based platform such as a bus. D1 aimed at transferring as little data as possible over wireless links to

overcome capacity limitations caused by the monitored site being mobile. D1 made clear that video cameras could not be utilised in a mobile platform monitoring system and did not disclose video cameras or video servers when wireless transfer was needed. The embodiments of D1 captured still images as electrical pixel signals by a camera and stored them one by one. The images were captured in intervals ranging from 2 minutes to 10 minutes. This could not be equated with the generation of video signals. A video camera had to be able to take 10 to 16 shots to generate one second of continuous video signal and was technically distinguished from a still camera. In D1 images captured before the alarm could only be used for analysing later on events such as accidents. The images were not transferred via the wireless link in response to a request. The system of D1 did not assist users with front line responsibility, for example emergency personnel.

VIII. The appellant requested that the decision under appeal be set aside and that a European patent be granted for the application on the basis of the main or one of the auxiliary requests. Oral proceedings were requested in case the application in its amended form was not allowable and the outstanding issues could not be handled in writing.

Reasons for the Decision

1. The appeal is admissible.

2. It is clear from the file and the list of application documents submitted by the appellant (see point III above) that the appellant's main request is to grant a patent in the following version:

Description:

Pages 1, 5, 6, 8 to 10, and 12 as published;
Page 2 as filed on 18 October 2003 with letter of 17 September 2003;
Pages 2a and 3 as filed by fax on 5 April 2007, 15:49:31 (confirmed by letter received on 6 April 2007);
Page 4 as filed on 9 March 2007 with letter of 8 March 2007;
Page 7 as filed on 24 April 2003 with letter of 16 April 2003;
Page 11 as filed on 14 February 2004 with letter of 10 February 2004.

Claims:

No. 1 to 9 as filed on 9 March 2007 with letter of 8 March 2007;
No. 10 to 12 as filed by fax on 5 April 2007, 15:49:31 (confirmed by letter received on 6 April 2007).

Drawings:

Sheet 1/3 as filed on 24 April 2003 with letter of 16 April 2003;
Sheet 2/3 as filed on 14 February 2004 with letter of 10 February 2004;
Sheet 3/3 as published.

3. *Main request: Amendments (Article 123(2) EPC)*

The amendments of the independent claims made in appeal proceedings (indicated in italics in point IV above) are disclosed in original claims 2 and 3, and on page 10, last line to page 11, second line in conjunction with page 11, lines 11 to 18, and page 12, lines 9 to 11, of the application as filed. The amendments of the dependent claims made in appeal proceedings are disclosed on page 11, lines 11 and 12, page 5, lines 20 to 22, and page 9, lines 13 to 17. The description has been brought into conformity with the claims. Also the other amendments in the current application documents are disclosed in the application as filed. Thus the board is satisfied that the application meets the requirements of Article 123(2) EPC.

4. *Document D1*

D1 discloses a method of monitoring a site from a remote location, the site being a mobile, ground-based platform, for instance a bus. The monitoring method comprises generating images of the site (page 5, lines 18 to 21) using a camera (figure 1, 61a, 61b, 61c; page 11, line 24 to page 12, line 2). Images are

digitally captured in the form of electrical pixel signals (page 15, lines 8 to 10) and stored in the hard drive (106) of a server (PC 104) (page 22, line 21 to page 23, line 17) located at the site.
In response to an alarm signal generated upon detection of an event at the site (figure 3B, steps 246, 260, 262; page 20, line 8 to page 21, line 15), a wireless connection is established for transfer of image signals between the site and a display device (77) located at the remote location (monitoring station 68), and an image signal stored in the hard drive (page 30, lines 11 to 26) is transferred from the site to the display device at the remote location over said wireless connection (page 31, line 11 to page 32, line 25). The transfer of further image signals from the site to the display device may be achieved by dialing, at the remote location, a cellular transceiver on the platform and hanging up (page 34, lines 22 to 25). Images generated in response to an alarm signal may be bundled with pre-alarm images into an alarm image group partly covering time prior to said alarm signal (page 30, lines 26 to 28). The pre-alarm images are still images which are taken at intervals ranging for example from 2 minutes to 10 minutes, and the number of captured images per camera may be set from 0 to 5, as desired (D1, page 22, line 21 to page 23, line 22). Furthermore D1 explicitly avoids the drawbacks of video tape recordings by storing images (page 24, line 22 to page 25, line 11).

5. *Main request: Novelty (Article 54 EPC)*

5.1 In contrast to D1, claim 1 of the present application specifies a video signal generated by a video camera. The video signal is transferred in response to an alarm signal (similar to the transfer of interval images in D1). Moreover claim 1 specifies that a "further video signal" is transferred from the site to the display device at the remote location in response to control signals received from the display device (cf. steps 304 and 307 of figure 3; page 2, line 23 to page 3, line 2; page 12, lines 6 to 17). According to claim 1, the further video signal is a portion of the stored video signal having been generated during a time period at least partly covering time prior to said alarm signal. Claim 11 specifies control means for a user at the remote location which allow controlling the transfer of video signal as specified in claim 1. These features are not disclosed in D1.

5.2 The argument in the decision under appeal that the interval images in D1 can be considered as video signals and that control signals for transferring portions of the video were known from D1 is not convincing in view of the present claims. The application distinguishes between still image signals and video image signals, both of which may in general be provided by a video camera (see page 1, lines 10 to 20). The claims specify that a video signal is provided by a video camera and stored in a video server, and that a wireless connection (link) is provided for transfer of the video signal. Thus the video signals specified in the claims are not still image signals as in D1.

5.3 In view of the above the board judges that the subject-matter of the claims shall be considered to be new in accordance with Article 54 EPC.

6. *Main request: Inventive step (Article 56 EPC)*

6.1 The application aims at avoiding continuous transmission of video signal (page 1, lines 13 to 15) in order to reduce the bandwidth requirements. It also aims at making available at the remote location the videos which are usually of particular interest, namely a first video signal showing what is happening after the alarm signal, and a further video showing what happened when the alarm was initiated (page 1, line 21 to page 2, line 2).

6.2 D1 aims at providing a security system for a mobile platform, for instance a bus, which captures images at predetermined intervals and/or in response to alarm signals (page 1, lines 9 to 13). D1 is based on the assumption that a security system for a mobile platform is not able to rely on fixed telephone lines for the communication of post-alarm images to a monitoring station (page 3, lines 7 to 18).

6.3 D1 thus teaches away from transferring video signals, in particular from the transferring of further video signal in response to a control signal as specified in the claims of the present application for three reasons. First, D1 teaches the use of still images in order to avoid the task of reviewing video tapes (page 24, line 22 to page 25, line 11). Second, D1 teaches that a group of images covering both time prior to and time

after the alarm signal should be transferred in response to the alarm signal (page 30, line 11 to page 31, line 19), even if image data are incompletely transferred (page 32, lines 12 to 18) and re-transmission of data becomes necessary. Third, D1 already considers the case in which an alarm input is generated and a user wishes to continue monitoring. The solution suggested in D1 is that the user dials the cellular transceiver and then hangs up, which causes the mobile platform to generate repeated alarm signals which lead to the transmission of still further images, but not of images captured before the earlier alarm input (D1, page 34, lines 2 to 25, and figure 3B).

6.4 Consequently a person skilled in the art had no obvious reason to modify D1 so that a video would be transferred in response to an alarm signal and a pre-alarm video would be transferred in response to a control signal. Thus the method of claim 1 and the system of claim 11 were not obvious to a person skilled in the art having regard to D1.

6.5 The argument in the decision under appeal that it was obvious to the skilled person that television-frequency images should be sent if the bandwidth and storage capacities were available does not take into account that replacing the still images of D1 by videos would not lead to the claimed invention. Instead it would result in the transfer of a group of videos in response to the alarm signal. And in the case that a user wished to continue monitoring the further videos would not cover time prior to the alarm signal.

6.6 In view of the above and since no other prior art on file hints at transferring portions of video signals as specified in claims 1 and 11, the board judges that the subject-matter of the claims of the main request shall be considered as involving an inventive step in accordance with Article 56 EPC.

7. In the judgment of the board the application meets the requirements of the EPC.

8. Under these circumstances the auxiliary requests need not be dealt with and a decision can be taken without oral proceedings before the board.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the first instance with the order to grant a patent in the following version:

Description:

Pages 1, 5, 6, 8 to 10, and 12 as published;
Page 2 as filed on 18 October 2003 with letter of 17 September 2003;
Pages 2a and 3 as filed by fax on 5 April 2007, 15:49:31;
Page 4 as filed on 9 March 2007 with letter of 8 March 2007;
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Drawings:

Sheet 1/3 as filed on 24 April 2003 with letter of 16 April 2003;

Sheet 2/3 as filed on 14 February 2004 with letter of 10 February 2004;
Sheet 3/3 as published.

The Registrar: The Chairman:

D. Sauter F. Edlinger