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Datasheet for the decision of 18 February 2009

Case Number: T 0135/06 - 3.5.01

Application Number: 96942641.0

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IPC: G06F 11/22, G01R 31/3185

Language of the proceedings: EN

Title of invention:
Monitoring control device

Applicant:
KOKEN CO., LTD., et al.

Opponent:
-

Headword:
Monitoring and controlling a device/KOKEN

Relevant legal provisions:
EPC Art. 123(2)

Relevant legal provisions (EPC 1973):
EPC Art. 83, 84

Keyword:
"Added subject-matter - main request and first auxiliary request (yes)"
"Clarity, sufficient disclosure - second and third auxiliary requests (no)"

Decisions cited:
-

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0135/06 - 3.5.01

D E C I S I O N
of the Technical Board of Appeal 3.5.01
of 18 February 2009

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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 12 August 2005 refusing European application No. 96942641.0 pursuant to Article 97(1) EPC 1973.**

Composition of the Board:

Chairman: S. Steinbrener
Members: S. Wibergh
P. Schmitz

Summary of Facts and Submissions

I. This appeal is against the decision of the examining division to refuse European patent application No. 96942641.0.

II. According to the decision appealed, claim 1 according to the main and first auxiliary requests contained undisclosed subject-matter, contravening Article 123(2) EPC 1973, and claim 1 according to the second auxiliary request was not clear. The third auxiliary request was not admitted under Rule 86(3) EPC 1973.

III. With the statement setting out the grounds of appeal, dated 20 December 2005, the appellants requested that the decision be set aside and a patent be granted on the basis of the claims according to the main request or one of the three auxiliary requests filed with the same letter. These claims were identical with the claims on which the decision under appeal was based.

IV. Claim 1 according to the *main and first auxiliary requests* reads:

"A data processing system comprising:

a CPU circuit (4; 29);

a plurality of boards (5; 27, 28) loaded with integrated circuits each of which supports a boundary scan test method;

a system bus (2; 43) connected to each of said boards

(5; 27, 28) and which supports the boundary scan test method;

boundary scan test means (7; 26; 50) for performing the boundary scan test method on each of said boards (5; 27, 28) or on each of said integrated circuits by supplying test data thereto and monitoring the resulting output data;

characterised in that:

said data processing system is arranged to perform monitoring and control of a device (3) by receiving sensor data from said device (3) which relates to the operation of said device (3) and, in response thereto, supplying the device (3) with control signals for controlling the operation of said device (3); and

said boundary scan test means (7; 26; 50) is arranged to perform the boundary scan test method using, for said test data, said sensor data obtained from said device (3), thereby enabling the boundary scan test means (7; 26; 50) to perform the boundary scan test method at the same time as said data processing system performs said monitoring and control of said device (3)".

V. Claim 1 of the *second auxiliary request* differs from the main request in that the last feature has been amended to read:

"... said boundary scan test means (7; 26; 50) is arranged to incorporate said sensor data received from said device (3) and to analyze said sensor data input

to and output from each of said integrated circuits to monitor the operating status of said data processing system, in parallel with said monitoring and control of said device (3) by said data processing system."

VI. Claim 1 of the *third auxiliary request* adds to the second auxiliary request the following feature in penultimate position:

"each of said integrated circuits is arranged to receive at an input thereof said sensor data from said device (3)".

VII. In a communication, the Board stated that it was doubtful if there was a clear and unambiguous teaching in the application as filed that the sensor data was used for test data. According to the description the sensor data was "incorporated by boundary test driver 26" (p.42, l.2). The disclosure did not seem to state whether the pattern generator data was not used at all or whether the pattern generator data was mixed with sensor data.

Nor were there any explanations about the suitability of sensor signals as test signals, or any other relevant details, figures or wave forms. The appellants had explained that the sensor data must be in test data format, and that this was a matter of common sense. Whether or not this was so, the omission of format information in the description made it even more unlikely that a skilled person would at all have started to think along these lines.

As to auxiliary requests 2 and 3, the Board stated that although the word "incorporate" had support, the question remained whether the skilled person would have understood the boundary scan test means to "analyze said sensor data". Also this claim effectively required the word "incorporate" to be understood as "using, for said test data", as in the main request.

VIII. Oral proceedings before the Board were held on 18 February 2009. The appellants requested that the decision under appeal be set aside and a patent be granted on the basis of the main request or any one of auxiliary requests 1 to 3, filed with the statement setting out the grounds of appeal dated 20 December 2005.

IX. At the end of the oral proceedings the Board announced its decision.

Reasons for the Decision

1. The field of the present invention is described in the following way in the initial paragraph of the patent application:

"The present invention relates to a monitoring control apparatus that performs monitoring and control of a robot and so forth as well as incorporation of data and so forth gathered by sensors, and more particularly, to a monitoring control apparatus that performs monitoring and control of a robot or other target of monitoring and control as well as incorporation of data and so forth while monitoring the operating status of a board

that supports the boundary scan test method using a boundary scan controller board".

The main request and auxiliary request 1

2. Claim 1 is the same for both requests, which will be considered together.

3. The examining division decided that the last paragraph of claim 1 contravened Article 123(2) EPC 1973. This paragraph reads (omitting the reference signs):

said boundary scan test means is arranged to perform the boundary scan test method using, for said test data, said sensor data obtained from said device, thereby enabling the boundary scan test means to perform the boundary scan test method at the same time as said data processing system performs said monitoring and control of said device.

It is said in the decision under appeal that the feature "using, for said test data, said sensor data" was, in the appellants' view, based on "various passages on page 42 of the description" (point 2.2 of the reasons). The examining division, on the other hand, held that all parts of the description clearly and unambiguously stated that test data were *not* sensor data, the only exception being page 42, which did not contain any clear and unambiguous teaching at all with respect to this feature (point 2.9 of the reasons).

4. At the oral proceedings before the Board, the appellants explained that only the first fourteen lines of page 42 of the description described the claimed

mode. This is also the passage on which the appellants rely in the statement setting out the grounds of appeal. The Board will therefore concentrate on this part of the description, which reads:

"In addition, in parallel with this operation, together with data (sensor data) being incorporated by boundary scan test driver 26 that is input to and output from each integrated circuit (that supports the boundary scan test method) composing CPU circuit 29, keyboard interface circuit 27, mouse interface circuit 28, CRT interface circuit 30, ROM circuit 31, RAM circuit 32, input/output interface circuit 33, communication circuit 34, floppy disk mechanism 37 and large-capacity storage mechanism 35 by controlling the CPU of CPU circuit 29, the above-mentioned sensor data is analyzed based on the analytical data stored in large-capacity storage mechanism 35 to monitor the operating status of robot monitoring task 40, robot control task 41 and screen display task 42 started by the above-mentioned OS 38".

5. The paragraph states that sensor data is "incorporated" by the scan test driver (which is part of the operating system, OS). Although constituting a clear teaching that the sensor data is used by the scan test driver, it does not say how, to what extent or to what end. In particular, it does not say that the sensor data is used "for said test data". Nor is this in any way self-evident. The skilled person would rather expect the test data to be supplied by the boundary scan test means. The preamble of claim 1 in fact says exactly this (cf point IV above): "boundary scan test means...

for performing the boundary scan test method... by supplying test data".

6. Moreover, taken literally, the use of sensor data as test data in a boundary scan test does not *prima facie* seem technically feasible, as argued by the examining division in the decision under appeal (cf point 4.5.2 of the reasons). The appellants argue that in the mode corresponding to the invention there is in fact no supply of test data for the boundary scan test. This argument is however not supported by the actual wording of claim 1 (see the preceding paragraph). The appellants further argue that the function of the boundary scan test according to the present invention should not be understood as a "test" but as "analytical processing of sensor data"; the test logic was used also for other things to reduce redundancy. Nevertheless, as far as the Board can see, the term "boundary scan test" is used in its normal sense in claim 1, as demonstrated by the fact that it appears in the preamble. In any case, if a conventional term in a claim is intended to be understood in an unconventional sense, this must be unequivocally indicated in the application. That is not the case here.

7. There is thus no direct and unambiguous disclosure that sensor data is used for test data. It follows that claim 1 has been modified such that it contains subject-matter extending beyond the application as originally filed (Article 123(2) EPC).

Auxiliary request 2

8. The final feature of claim 1 reads (omitting the reference signs):

said boundary scan test means is arranged to incorporate said sensor data received from said device and to analyze said sensor data input to and output from each of said integrated circuits to monitor the operating status of said data processing system, in parallel with said monitoring and control of said device by said data processing system.

9. As the examining division has pointed out, no objection under Article 123(2) EPC is justified with respect to the amended feature since its wording closely follows that of the description (cf point 4 above). The division however found the claim obscure (cf point 4 ff of the reasons).

10. The Board agrees. Not only does the vague word "incorporate" leave it open what the boundary scan test means actually does with the sensor data, but, as the examining division objected, the claim also does not specify whether the sensor data is original or processed. The appellants have argued that this objection was formalistic since it was sufficient for the claim to state that sensor data (in some form) was used. However, even if this argument was accepted, claim 1 does not say this. It says instead that the sensor data to be "incorporated" is *received from said device*, whereas the sensor data to be "analyzed" is *input to,* and *output from, each of said integrated circuits*. Whether intentional or not, the three

different formulations suggest (unspecified) distinctions. The claim therefore contravenes Article 84 EPC 1973 (clarity).

11. An additional question is whether the application discloses the invention - as far as it can be understood from claim 1 - in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art, as required by Article 83 EPC 1973. Although in the decision under appeal only doubts are expressed in this respect (see point 4.5), the examining division did in fact explicitly state in the oral proceedings that the description did not fulfil this requirement (cf the minutes of the oral proceedings before the examining division, point 11).

12. The Board also finds that Article 83 EPC 1973 is contravened. In order to carry out the invention the skilled person would first have to "incorporate" the sensor data in the boundary scan test means. Given that the term "incorporate" is not defined, it is questionable if he had known what to do. Furthermore, he would have to devise boundary scan test means capable of "analyzing" the sensor data to monitor the operating status of the system. Searching in the description for further hints as to the nature of this analysis, he would discover that it should be based on "analytical data" that is normally used for the boundary scan test (cf p.42, l.1-14 and p.41, l.2-9). The skilled person would thus be required to find a way of "analyzing" the sensor data using "analytical data" intended for quite another purpose in order to "monitor the operating status" of the system. The goal is vague, the means to arrive at it enigmatic.

In such circumstances it is not enough to refer to the skilled person's general implementation skills, as the appellants have done. It is true that if only conventional techniques are needed, the skilled person can normally fill in any gaps in a teaching. But if a patent application neither clearly defines the desired effects of the invention, nor explains in more than sketchy terms how to obtain them, ordinary skills do not suffice. In the present case the Board cannot see how the invention could possibly be carried out without placing undue burden on the skilled person.

Auxiliary request 3

13. The objections under Articles 83 and 84 EPC 1973 made with respect to the preceding request apply.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

T. Buschek S. Steinbrener