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**Datasheet for the decision  
of 25 June 2012**

**Case Number:** T 0966/10 - 3.5.03

**Application Number:** 04800409.7

**Publication Number:** 1749249

**IPC:** G05B 19/414, B25J 13/00,  
B25J 9/16

**Language of the proceedings:** EN

**Title of invention:**  
Peripheral device for use with an industrial robot

**Applicant:**  
ABB Research Ltd.

**Headword:**  
Peripheral device/ABB

**Relevant legal provisions:**  
EPC Art. 56  
EPC R. 103(1)(a)

**Keyword:**  
"Inventive step - no"  
"Substantial procedural violation - no"  
"Reimbursement of the appeal fee - no"



Case Number: T 0966/10 - 3.5.03

**D E C I S I O N**  
of the Technical Board of Appeal 3.5.03  
of 25 June 2012

**Appellant:**  
(Applicant)

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**Representative:**

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**Decision under appeal:**

Decision of the Examining Division of the  
European Patent Office posted 10 November 2009  
refusing European patent application  
No. 04800409.7 pursuant to Article 97(2) EPC.

**Composition of the Board:**

**Chairman:** A. S. Clelland  
**Members:** B. Noll  
M.-B. Tardo-Dino

## Summary of Facts and Submissions

I. This appeal is against the decision of the examining division to refuse European patent application No. 04800409.7. The application was published as international application WO 2005/059666 A1. The refusal was based firstly on the ground that the subject-matter of claim 14 of a main request, claim 13 of a first auxiliary request and claim 12 of a second auxiliary request extended beyond the content of the application as filed (Article 123(2) EPC). These claims, and claim 1 of each auxiliary request, were also said to lack clarity (Article 84 EPC). The subject-matter of each of independent claims 1 and 14 of the main request, claims 1 and 13 of the first auxiliary request and claims 1 and 12 of a second auxiliary request was said to lack an inventive step. Inter alia, the following documents were referred to in the impugned decision:

D8: Y. Hiraga et al: Decentralized Control of Machines with the Use of Inductive Transmission of Power and Signal. IEEE Industry Applications Society Annual Meeting, Denver, CO, USA, 2-6 Oct. 1994, pages 875 - 881.

D17: US 2003/0028286 A1

II. In the notice of appeal the appellant requested that the appeal fee be reimbursed due to a substantial procedural violation.

III. From the statement of grounds of appeal the board understands that in addition to the request for reimbursement of the appeal fee the appellant requests that the impugned decision be set aside and that a

patent be granted on the basis of the requests on file, i.e. claims 1 to 24 of the main request, or claims 1 to 22 of the first auxiliary request, or claims 1 to 20 of the second auxiliary request, all as filed on 15 July 2009.

- IV. In a communication accompanying a summons to oral proceedings the board gave a preliminary opinion as regards the alleged procedural violation, clarity and interpretation of the claims and inventive step.
- V. With a submission filed 22 May 2012 the appellant informed the board that it did not intend to attend the oral proceedings.
- VI. Claim 1 of the main request reads as follows:

"1. A peripheral device (1, 301) for use together with an industrial robot (200, 300), which said robot (200, 300) comprises at least one arm for carrying out an industrial task, and where said robot (200, 300) may be arranged relative to said peripheral device (73, 75, 77), characterised by said peripheral device (73) comprising a wireless communication member (321) for wireless communication with a robot control unit (325, 325', 325''), and the wireless communication member is arranged compatible with a radio technology working in a high frequency band from 400 MHz and higher with interference suppression means by spread spectrum technology, frequency hopping or other modulation technique or combination thereof, said peripheral device being a storage rack, a jig or a turntable."

Claim 1 of the first auxiliary request adds the feature "wherein the peripheral device further comprises local means for carrying out a control action for the peripheral device dependent on message received wirelessly, the message being to "open" or "close"".

Claim 1 of the second auxiliary request adds to claim 1 of the first auxiliary request the further feature "and local means for carrying out a response dependent a completed control action such as sending an "open\_completed" or equivalent message wirelessly to the control unit after the control action has been performed".

VII. Oral proceedings before the board took place on 25 June 2012 in absence of the appellant. At the end of the oral proceedings the board decided on the case.

### **Reasons for the decision**

1. *Claim 1 of the main request - inventive step (Article 56 EPC).*

For the assessment of inventive step the reference in claim 1 to an industrial robot which is separate from the claimed peripheral device is interpreted by the board as meaning that the peripheral device is capable of communicating with a robot.

1.1 D8 is considered as the single most relevant prior art document and discloses a motion control system (figure 1) having a stationary block and a moveable block. The moveable block is considered as the

"peripheral device" in the terminology of claim 1. The moveable block in D8 receives electrical power from, and communicates with the stationary block through, a contactless communication member by means of inductive transmission (cf. page 879, the first paragraph of point V).

1.2 The device according to claim 1 differs from D8 by the following features:

(a) the wireless communication member is arranged compatible with a radio technology working in a high frequency band from 400 MHz and higher with interference suppression means by spread spectrum technology, frequency hopping or other modulation technique or combination thereof, and

(b) the peripheral device is a storage rack, a jig or a turntable.

1.3 The technical problem to be solved by the invention can be derived from the second complete paragraph on page 2 of the published application at which it is mentioned that the implementation of a contactless connection or supply may become difficult and costly due to limited space available and due to restrictions caused by electromagnetic interference. Based on this passage the objective technical problem was considered by the board in its communication as to find an alternative solution for the known contactless connection. This definition of the technical problem was not contested by the appellant.

1.4 D17 discloses, inter alia, a system for having communication between a robot and physical assets arranged at positions relative to the robot (paragraph [0174]) through an impulse radio unit 602 (figure 6) included in a wireless identification tag 1204 which is associated with each physical asset (paragraphs [0176, 0177]). The impulse radio unit is described as enabling ultra-wideband communication covering a bandwidth of 2 GHz (paragraph [0098]) and using various types of modulation (paragraphs [0052-0054]). The skilled person would therefore consider an impulse radio unit as described in D17 as an appropriate alternative for the contactless communication system of D8. The skilled person would further be led by paragraph [0174] of D17 to provide an impulse radio unit to each peripheral device which needs to communicate with the robot and would therefore consider each of a storage rack, a jig or a turntable as a non-inventive choice of a particular physical asset.

Therefore, the skilled person, starting out from D8 and having regard to the problem as set out at point 1.3 above, would be led by D17 to a peripheral device according to claim 1 without the exercise of inventive skill.

1.5 In the statement of grounds of appeal the appellant argued that the skilled person would not consider D8 and D17 in combination since D8 disclosed a combined power and signal transfer using induction whereas D17 disclosed radio transmission for signal transfer.

1.6 In the board's view the appellant's argument only explains that the principles of signal transfer as disclosed in D8 and D17 are mutually independent. However, they are not incompatible, as the signal transfer principles of D8 and D17 may be used either separately or, by mere juxtaposition, in common. For this reason the appellant's argument must fail.

1.7 It thus follows that the subject-matter of claim 1 lacks an inventive step (Article 56 EPC).

2. *The auxiliary requests - inventive step (Article 56 EPC)*

2.1 The feature added in claim 1 of the first and the second auxiliary requests, that the peripheral device further comprises local means for carrying out a control action dependent on a received message, is implicit in D8 since the moveable block includes actuators which are controlled by data received from the stationary block. The definition of the message content is a matter of free, non-inventive choice for the skilled person and defining the message as being to "open" or "close" does not require inventive skill.

2.2 The additional feature in claim 1 of the second auxiliary request, that the peripheral device comprises local means for carrying out a response dependent on a completed control action, is likewise implicit in D8: the moveable block includes sensors associated with the actuators (figure 1) and is configured to transfer the sensing result to the stationary block (figure 2). For the same reasons as outlined at point 2.1 above with regard to the definition of the message, the definition



of the response as being "open\_completed" does not require inventive skill.

2.3 For the above reasons, the peripheral device as claimed in claim 1 of both the first and the second auxiliary requests lacks an inventive step (Article 56 EPC).

3. Since the subject-matter of claim 1 of each request fails to meet the requirement as to inventive step, there is no allowable request and the appeal cannot be allowed.

4. *The request for reimbursement of the appeal fee*

4.1 Pursuant to Rule 103(1)(a) EPC the appeal fee shall be reimbursed in the event of interlocutory revision or where the Board of Appeal deems an appeal to be allowable, if such reimbursement is equitable by reason of a substantial procedural violation.

4.2 In the present case the prerequisite for the reimbursement of the appeal fee that the appeal is allowable is not met. Thus, the request has to be rejected. In any case, for the reasons set out below the board does not consider that a fundamental deficiency has occurred.

4.3 The appellant argues that its right to be heard, Article 113(1) EPC, was violated in that it had no opportunity to comment on the grounds for refusal pursuant to Articles 84 and 123(2) EPC as set out at points II.1 and II.2 of the impugned decision (cf. the last paragraph at page 1 of the statement of grounds).

However, the appeal is dismissed on the ground of lack of inventive step, which was also a ground for refusal in the impugned decision (cf. points II.3, II.7 and II.10). The appellant had the opportunity to comment on this ground, and indeed did so (cf. pages 3 and 4 of the statement of grounds).

As regards the appellant's opportunity to comment on the objections pursuant to Articles 84 and 123(2) EPC, the board notes that the wording "using a wireless communication member" which occurs in the independent method claim of each request and which gave rise to these objections in the impugned decision, was introduced for the first time into the claims as filed in response to a summons for oral proceedings before the examining division.

The board considers that by filing amended claims in response to the summons to oral proceedings and subsequently not attending these proceedings, the applicant chose to rely on its written case and to forfeit the opportunity to comment on any objections which concerned amendments filed after the summons to oral proceedings. Such a strategy cannot subsequently be used by the appellant to justify an alleged procedural violation.

- 4.4 In conclusion, for the aforementioned reasons the request for reimbursement of the appeal fee is rejected.

**Order**

**For these reasons it is decided that:**

1. The appeal is dismissed.
  
2. The request for reimbursement of the appeal fee is rejected.

The Registrar:

The Chairman:

G. Rauh

A. S. Clelland