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**Datasheet for the decision  
of 4 May 2016**

**Case Number:** T 2181/12 - 3.5.05

**Application Number:** 09159499.4

**Publication Number:** 2249272

**IPC:** G06F19/00

**Language of the proceedings:** EN

**Title of invention:**

Analysis system for analyzing biological samples, data processing method and computer program product

**Applicant:**

F.Hoffmann-La Roche AG  
Roche Diagnostics GmbH

**Headword:**

System for analyzing biological samples/ROCHE

**Relevant legal provisions:**

EPC Art. 123(2), 111(1)  
EPC 1973 Art. 84

**Keyword:**

Amendments - added subject-matter (no)

Claims - clarity after amendment (yes)

Late-filed auxiliary requests - amendments after arrangement  
of oral proceedings - justification for late filing (yes) -  
admitted (yes)

Remittal to the department of first instance - (yes)

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**  
**Boards of Appeal**  
**Chambres de recours**

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Case Number: T 2181/12 - 3.5.05

**D E C I S I O N**  
**of Technical Board of Appeal 3.5.05**  
**of 4 May 2016**

**Appellant:** F.Hoffmann-La Roche AG  
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4070 Basel (CH)

**Appellant:** Roche Diagnostics GmbH  
(Applicant 2) Sandhofer Strasse 116  
68305 Mannheim (DE)

**Representative:** Richardt Patentanwälte PartG mbB  
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**Decision under appeal:** **Decision of the Examining Division of the European Patent Office posted on 1 June 2012 refusing European patent application No. 09159499.4 pursuant to Article 97(2) EPC.**

**Composition of the Board:**

**Chair** A. Ritzka  
**Members:** M. Höhn  
G. Weiss

## **Summary of Facts and Submissions**

- I. This appeal is against the decision of the Examining Division of the European Patent Office posted on 1 June 2012 refusing European patent application No. 09159499.4 pursuant to Article 97(2) EPC on the grounds of added subject-matter (Article 123(2) EPC), lack of clarity (Article 84 EPC 1973) and lack of inventive step (Article 56 EPC 1973) with regard to prior-art publications:
- D1: EP 1818812 A1 and  
D2: US 2008/168850 A1.
- II. The notice of appeal was received on 29 June 2016. The appeal fee was paid on the same day. The statement setting out the grounds of appeal was received on 14 September 2016. The appellant requested that the appealed decision be set aside and that a patent be granted on the basis of the main request or auxiliary requests i to iii, all filed with the statement setting out the grounds of appeal. Oral proceedings were requested on an auxiliary basis.
- III. With a communication dated 1 March 2016 the board summoned the appellant to oral proceedings on 4 May 2016. Further publications D3 (WO 98/26365 A1) and D4 (EP 1862928 A1) were introduced into the proceedings by the board of its own motion according to Article 114(1) EPC 1973. D4 was considered to be known to the appellants, because it originated from the same applicants. In an annex to the summons the board expressed its preliminary opinion that all requests lacked clarity (Article 84 EPC 1973) and inventive step (Article 56 EPC 1973). Furthermore, it appeared that

the auxiliary requests did not fulfil the requirements of Article 123(2) EPC.

- IV. By letter dated 1 April 2016 the appellant submitted three sets of claims according to a modified main request and modified auxiliary requests i and iii, supported by arguments in favour of clarity and inventive step.
- V. Oral proceedings were held on 4 May 2016. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the new main request submitted at the oral proceedings or, alternatively, on the basis of the main request or one of the auxiliary requests i to iii, all requests submitted with the statement setting out the grounds of appeal. The requests filed with letter dated 1 April 2016 were withdrawn.

Independent claim 1 according to the new main request reads as follows:

"1. An analysis system for analyzing biological samples comprising:

- at least one analyzer (100) being coupled to a respective analyzer control computer (102), the analyzer control computer comprising an analyzer control application program (104) for receiving first control data and for sending analytical data, the analyzer control application program being adapted to generate a host screen image (114), the host screen image being rendered under the control of an operating system (110) of the analyzer control computer (102), and further comprising a host application program (122), the at least one analyzer being operable to induce a reaction of a biological sample with a reagent

and to acquire at least one measurement value being related to the reaction, wherein the control data received by the analyzer control application program encompasses data for specifying or enabling a requested action of the at least one analyzer, said data including data specifying the biological sample to be analyzed and specifying a kind of analysis to be performed on the biological sample, wherein the analyzer control application program of the at least one analyzer generates one or more commands when receiving a request containing the first control data, said commands being commands for the at least one analyzer for execution of the request, wherein the reaction is induced by the at least one analyzer in accordance with the first control data, wherein the at least one analyzer (100) responds to said commands by sending analytical data back to the analyzer control application program (104), wherein the host screen image (114) comprises up to date status information of the at least one analyzer (100) and one or more data entry fields for entry of second control data for the at least one analyzer, the second control data being data for controlling the at least one analyzer,

- a remote computer (106) being coupled to the at least one analyzer control computer, the remote computer comprising a data manager application program (130) for sending the first control data to the at least one analyzer control computer and for receiving the analytical data, the data manager application (130) program being adapted to generate a first window for requesting a performance of the analysis of the biological sample by the at least one analyzer, and further comprising at least one remote application program (124), the remote application program being adapted to interoperate with the host application program for generating a second window containing a

duplicate of the host screen image, the communication between the remote application program and the host application program being performed via the PCAnywhere protocol;

- a user interface program (134) for displaying a first display window (142) and at least one second display window (144), the first display window being one of the first and second windows and the second display window being a screen shot of the other one of the first and second windows, wherein only the first display window is adapted for entry of user data for interaction with the at least one analyzer (100), wherein data entered by the user into a second window being the first display window is transformed into image data by the remote application program (124) and communicated as image data to the host application program which then enters this data into the analyzer control application program, wherein the user interface program is adapted to repeatedly update the screen shot;
- input means (146) for entering a user's selection of the first or the second window for displaying as the first display window, wherein a selection of the second window to become the first display window enables the user to communicate with the analyzer control application program without going through the intermediary of the data manager application program."

VI. After due consideration of the appellant's arguments the chair announced the decision.

## **Reasons for the Decision**

### 1. Admissibility

The appeal complies with Articles 106 to 108 EPC (see Facts and Submissions, point II above). It is therefore admissible.

### **New main request**

### 2. Amendments - Article 123(2) EPC

The amendments made to claim 1 during oral proceedings are originally disclosed in the application as filed (see page 8, third paragraph, and page 18, second paragraph). The requirements of Article 123(2) EPC are therefore fulfilled.

### 3. Clarity - Article 84 EPC 1973

Claim 1 as amended during oral proceedings overcomes the objections of lack of clarity raised in the annex to the summons to oral proceedings:

According to claim 1, the host screen image 114 is generated by the analyser control program 104. The remote application program 124 generates the second window and inter-operates with the host application program 122. No inter-operation had been specified with the analyser control program 104. Claim 1 now specifies an inter-operation between the control application program 104 and the host application program 122 and thereby defines how the remote computer 106 gets information regarding the host screen image for making the second window a duplicate of the host screen image.



By deleting the functional difference between "being" and "containing" a window, the lack of clarity objection has been overcome.

Claim 1 no longer covers the possibility of there being more than one first display window, which was considered to be at odds with the alleged underlying technical effect of having such a first display window.

The functionality of the "first window" compared to the "second window" has been rendered clear. Claim 1 now clearly defines the communication and interrelation between the "first window" and "second windows" by specifying how a request is sent by distinguishing between first control data related to the "first window" and second control data given by the "second window".

The requirements of Article 84 EPC 1973 are therefore fulfilled.

4. Article 56 EPC 1973 - Inventive step

4.1 D1 was regarded as the closest prior art in the decision under appeal. The board agrees with the decision that D1 can be a valid starting point for assessing inventive step. Although D1 is not related to analysing biological samples, it is nevertheless pertinent, since the invention claims a computer architecture with software components and is directed to the remote control and monitoring of the execution of a software application on a plurality of computers (see par. 1 of D1). The board concurs that the claimed contribution to the prior art is not in the field of an improved way of analysing biological samples, but in the computer-related implementation of a remote

operation functionality for known analyses of biological samples. The system of D1 relates to a similar problem as the application and discloses the essential structural technical components of claim 1 that are concerned with remotely controlling system components.

4.2 The board does not agree with the appellants' argument that for the claimed subject-matter human lives are at stake (see grounds, page 11, par. 6). The claimed features do not directly affect human lives - which might depend on the results of the biological analysis, but not on whether the analysis was conducted directly or by remote access.

4.3 The board essentially agrees with the analysis of D1 and the reasons given (see points 13.2 to 13.6) in the decision under appeal. The decision makes reference to the applicants' letter of 21.02.2012, page 13, in which it was stated that the task separation (i.e. the host application program is not responsible for controlling the analyser but for taking screenshots) solved the problem of monitoring and controlling legacy analyser control programs and legacy analysers. The board in particular agrees that even if the objective technical problem was formulated as adapting a legacy analyser for remote control, the solution of having an additional program that is responsible for the communication with the remote program is obvious and straightforward, as it was common practice in the art to develop additional program modules that are responsible for additional functional requirements.

4.4 The board concurs with the appellants that D2 only discloses monitoring of analytical devices connected over a network, not to remotely control such devices.

For this reason the board considers D3 to be more pertinent, since it also deals with remotely controlling devices for analysing biological samples (see e.g. figure 5 of D3).

- 4.5 As D3 has the most structural and functional features in common with the claimed invention and therefore is regarded as the most promising starting point, it is considered to be the closest prior art.

D3 discloses in connection with figure 5 (see also pages 11 to 13 of D3) an automated test instrument suite 130 comprising a plurality of standard laboratory modules (SLMs) 134 and standard support modules (SSMs) 132. The SSMs 132 and SLMs 134 are communicatively coupled to one or more task sequence controllers (TSCs) 136, which are intermediate level devices. The task sequence controller 136 is communicatively coupled to a process controller 128. The process controller 128 interfaces between the remote client and the automated test instrument suite 130, providing level process control tools 124 to remote client 100. These process control tools are the front-line communication and management tools which provide the interface between remote users and the automated test instrument suite 130.

The process control tools 124 allow the remote client 100 to access, control, and process data in database 138. Computer instructions implementing the process control tools 124 can be shared between the process controller 128 and the remote client 100, but can also be implemented by either alone. When the remote client 100 requests access to the automated test instrument suite 130, some of the instructions residing at the process controller 128 are transmitted to the remote

client 100 over the communications link 126, processed by the processor 120, and stored in the remote client memory 122.

In the board's view, D3 thereby discloses the structural features of claim 1. Furthermore, it is disclosed that a user can remotely enter data for controlling the analysing units/SLMs, i.e. data entry input means are foreseen. By using a process controller 128 as intermediate level between the remote client and the task sequence controller, functionality can be shared, e.g. by using different application layers. Figure 6 of D3 discloses such a software architecture based on different levels which are considered to be equivalent to analyser control program, host application, data manager application program and remote application program according to claim 1. In particular D3 discloses that computer instructions implementing the process control tools 124 can be shared between the process controller 128 and the remote client 100 (see D3, page 12, lines 33 to 35).

- 4.6 The board agrees with the decision under appeal (see e.g. point 13.5 of the decision) that implementing different functions by different programs was a known and obvious alternative to implementing the same functions by the same program.
- 4.7 According to the applicants (see reference in the decision to the letter dated 21.02.2012, page 13), the host application program is not responsible for controlling the analyser, but for taking screenshots, and the task separation solves the problem of monitoring and controlling legacy analyser control programs and legacy analysers. This problem is already solved by D3 (see above). The solution of having an

additional program that is responsible for the communication with the remote program is considered to be obvious. It was a common practice in the art to develop additional program modules that are responsible for additional functional requirements.

4.8 The decision under appeal is correct in arguing that D1 discloses that a remote program (the SCV) receives screenshots from a plurality of computers (from the respective control programs, the SCTs) and displays them in relevant windows (see paragraph 25 and paragraph 28, last sentence). D1 further discloses that a controller window can be set in the SCV (see paragraphs 46 and 47). This controller window corresponds to the first display window of claim 1. D1 also discloses that only one controller window, corresponding to a single SCT, can be active. Through a user action, a new window for interaction with a respective machine can be chosen (see also paragraph 58). According to D1 (see par. 47), upon a mouse movement a different window corresponding to a different computer can be selected and remote control over the computer is initiated.

4.9 The appellants argued that the active window selection in claim 1 is a two-step process of firstly selecting a window (the first or the second) e.g. by a mouse click and, secondly, changing the location of this window to the "first display window". The board is not convinced by this argument, because such a location change is not reflected by the wording of claim 1.

4.10 Also D4 discloses the use of a GUI with different windows on the basis of host interface protocols, particularly via ASTM or HL7 (see e.g. figures 4a, 4b

and 5; claims 15 to 17) in the field of controlling laboratory equipment.

5. During the oral proceedings, the appellants introduced the following feature into claim 1:

"wherein data entered by the user into a second window being the first display window is transformed into image data by the remote application program (124) and communicated as image data to the host application program which then enters this data into the analyzer control application program, wherein the user interface program is adapted to repeatedly update the screen shot".

- 5.1 This feature was taken from the description and was not previously part of the set of claims before. The board therefore cannot be sure that this feature has been searched. Since this amendment was presented in reaction to objections made by the board, but at a late stage of the oral proceedings and introduced subject-matter not discussed before, the board admitted the request into the proceedings, but was not in a position to decide on the appellants' request including amended claim 1. In view of the need to continue substantive examination on the basis of a feature which was not part of the discussions before the first instance and the potential need for a search for further prior art, the board exercises its discretion according to Article 111(1) EPC and remits the case to the department of first instance for further prosecution.

## Order

### For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance for further prosecution on the basis of the new main request submitted at the oral proceedings before the board.

The Registrar:

The Chair:



L. Malécot-Grob

A. Ritzka

Decision electronically authenticated