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**Datasheet for the decision  
of 15 November 2016**

**Case Number:** T 1549/12 - 3.4.02

**Application Number:** 99307555.5

**Publication Number:** 0994433

**IPC:** G02B21/36, G06T3/40, H04N7/18

**Language of the proceedings:** EN

**Title of invention:**  
Microscopy

**Patent Proprietor:**  
HAMAMATSU PHOTONICS K.K.

**Opponents:**  
Leica Microsystems GmbH  
Leica Microsystems CMS GmbH

**Headword:**

**Relevant legal provisions:**  
EPC 1973 Art. 56

**Keyword:**  
Inventive step - main request (no) - first auxiliary request  
(yes)

**Decisions cited:**

**Catchword:**



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

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Case Number: T 1549/12 - 3.4.02

**D E C I S I O N**  
**of Technical Board of Appeal 3.4.02**  
**of 15 November 2016**

**Appellant:** HAMAMATSU PHOTONICS K.K.  
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**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
26 April 2012 concerning maintenance of the  
European Patent No. 0994433 in amended form.**

**Composition of the Board:**

**Chairman** R. Bekkering  
**Members:** H. von Gronau  
T. Karamanli

## **Summary of Facts and Submissions**

I. The appeal of the patent proprietor (appellant I) and the appeal of the joint opponents (appellant II) is directed against the decision of the opposition division to maintain the European patent in amended form according to the first auxiliary request. The opposition division found that the subject-matter of claim 1 of the main request did not involve an inventive step in view of document

D16: "The virtual Microscope", 1997 AMIA Annual Fall Symposium, Nashville, TN, October 1997

and that the independent claim 1 of the first auxiliary request involved an inventive step in view of the closest prior art document D16.

II. The patent proprietor requests that the decision under appeal be set aside and that the patent be maintained in amended form on the basis of the claims of the main request, filed with its statement of grounds of appeal. As first auxiliary request, it requested that the appeal of the opponents be dismissed. The patent proprietor further requested that the decision under appeal be set aside and that the patent be maintained in amended form on the basis of the claims of one of the second to sixth auxiliary requests, all filed with its statement of grounds of appeal, or of the seventh auxiliary request, filed with its letter dated 14 October 2016.

III. The joint opponents request that the decision under appeal be set aside and that the patent be revoked.

IV. In a communication annexed to a summons to oral proceedings the board summarized the arguments of the opposition division and the parties. With respect to the main request the board expressed the provisional opinion that it tended to concur with the position of the opponents on the issue of inventive step. As to the first auxiliary request the board identified as crucial point whether starting from document D16 it was obvious to remove the shading in the composite image and whether it involved an inventive step to recognize the desire to remove the shading in the method of document D16. Provisionally the board could not see an inventive step therein.

V. With letter dated 14 October 2016 the patent proprietor filed the following documents:

L1: "Digital Dynamic Telepathology - the Virtual Microscope", Afework et al, Proceedings of the 1998 AMIA Annual Fall Symposium, pp. 912-916;

L2: A copy of the front page of the Proceedings of the 1998 AMIA Annual Fall Symposium, indicating the dates of 7-11 November 1998;

L3: E-poster slides entitled "Virtual Microscope: Database and Systems Software for Multi-Scale Problems", downloaded from <http://www.cs.umd.edu/projects/hpsl/ResearchAreas/VMaterial/apiii-oct14.pdf>;

L4a: Paper entitled "Virtual Microscopy in Medical Images: a Survey", Romero, et al, downloaded from [www.formatex.org/microscopy3/pdf/pp996-1006.pdf](http://www.formatex.org/microscopy3/pdf/pp996-1006.pdf);

L4b: "The Pathology Quarterly", Fall edition 1999, downloaded from <http://path.upmc.edu/showcase/quarterly/1999-fal/fall99.pdf>;

L5: Paper entitled "Applications of Virtual Reality Technology in Pathology", Grimes et al, *Medicine Meets Virtual Reality*, p. 319, K.S. Morgan et al. (Eds.), JOS Press, 1997; and

L6: An extract from "Telepathology Telecommunication, Electronic Education and publication in Pathology", Kayser, Szymas, Weinstein, Springer-Verlag Berlin Heidelberg, 1999 (<http://www.springer.com/book/9783642642357>).

and requested that these documents be admitted into the proceedings. These documents proved that in document D16 the thumbnail image was not generated by processing the high resolution image, because the authors of document D16 later found out that wavelet compression was more complex than expected and they suggested only later, as a new technique, generating the low resolution thumbnail from higher resolution images. The proprietor also filed arguments with respect to the auxiliary requests.

- VI. The opponents requested that documents L1 to L6 should not be admitted.
- VII. Oral proceedings were held on 15 November 2016. At the end of the oral proceedings the board announced its decision.
- VIII. In their submissions the parties to the appeal proceedings relied also on the following documents:

D1: WO 98/39728  
D8: US 4 673 988

IX. Claim 1 according to the main request reads as follows:

"A method of telemicroscopy, comprising the steps of: placing a microscopy slide (10) containing a prepared specimen upon a stage (11) of a microscope (12) equipped with a high power objective lens (14), digital imaging apparatus (13) and motorised stage (11), and imaging the whole of the specimen using the high power objective lens (14) to obtain high resolution digital image data for the specimen; characterised by: digitally processing the high resolution digital image data to obtain a relatively low resolution copy (30) of the image data for the whole of the specimen; storing the high resolution image data and the low resolution copy of the image data in a datastore; allowing access to the datastore from a terminal (16); transferring the data for the low resolution copy (30) of the image data to the terminal (16) and displaying a corresponding low resolution image upon a monitor (35); and in response to user selection, by means of the terminal (16), of an area of the low resolution image, transferring corresponding high resolution image data for that area from the datastore to the terminal(16)."

X. The independent claims of the first auxiliary request underlying the decision under appeal read as follows:

"1. A method of telemicroscopy, comprising the steps of: placing a microscopy slide (10) containing a prepared specimen upon a stage (11) of a microscope (12) equipped with a high power objective lens (14), digital imaging apparatus (13) and motorised stage

(11), and imaging the whole of the specimen using the high power objective lens (14) to obtain high resolution digital image data for the specimen by obtaining a continuous sequence of successive images of the specimen by advancing the field of view of the high power objective lens (14) of the microscope (12) stepwise across the specimen and acquiring an image of each field of view;

characterised by:

digitally processing the high resolution digital image data to obtain a relatively low resolution copy (30) of the image data for the whole of the specimen;

processing the image data acquired for each image of each field of view to remove peripheral shading around each image of each field of view, and storing the processed data in a datastore;

storing the low resolution copy of the image data in the datastore;

allowing access to the datastore from a terminal (16);

transferring the data for the low resolution copy (30) of the image data to the terminal (16) and displaying a corresponding low resolution image, as a navigation map, upon a monitor (35); and

in response to user selection, by means of the terminal (16), of an area of the low resolution image,

transferring corresponding high resolution image data for that area from the datastore to the terminal(16)."

"6. A telemicroscopy apparatus comprising: a microscope (12) provided with a high power objective lens (14); a digital imaging apparatus (13) and a motorised stage (11); wherein the apparatus is adapted to be controlled to obtain, using the high power objective lens (14), digital image data of an entire specimen on a microscopy slide (10) placed upon the stage (11) at a desired high resolution; a terminal (16) having a



monitor (35); means for transferring, in use, image data to the terminal (16) in response to requests therefrom;  
characterised by image processing means arranged to process the high resolution digital image data to obtain a low resolution copy (30) of the image data of the entire specimen; in that: the image processing means are further arranged to process the image data acquired for each image of each field of view to remove peripheral shading around each image of each field of view; in that the apparatus further comprises: storage means arranged to store the processed image data and the low resolution copy (30) of the image data; and means for allowing access to the datastore from the terminal (16); in that the means for transferring is adapted to transfer the low resolution copy (30) of the image data to the terminal (16), the terminal being arranged to display a corresponding low resolution image as a navigation map on the monitor; in that the terminal is further configured to allow user selection of an area of the low resolution image; and in that the means for transferring is further adapted to transfer, in response to the user selection, corresponding high resolution image data for that area from the datastore to the terminal (16)."

"11. A computer readable medium comprising a computer program for carrying out a method of telemicroscopy as claimed in any one of claims 1 to 5."

### **Reasons for the Decision**

1. Admission of documents L1 to L6 (Article 13(1), (3) RPBA)

- 1.1 With letter dated 14 October 2016, the patent proprietor filed documents L1 to L6 and requested the admission of these documents into the proceedings. The patent proprietor argued as follows: These documents were filed to explain how the person skilled in the art would have interpreted the disclosure of document D16. To address that point, documents L1, L2 and L3 were provided as evidence. These were filed in direct response to the points made by the board in their provisional opinion. Moreover, they helped to explain document D16's discussion. L2 simply evidenced the disclosure date of L1, which was 7-11 November 1998, approximately one year after the publication of D16. L4a evidenced that L3 was an E-poster presentation at a specific conference (see reference 4 at the end of this document) and L4b clarified the disclosure date of L3, which was October "14-16 1999", approximately two years after the publication of D16.

With respect to the industry standard (producing a low resolution image by scanning the slide with low magnifying lens) the patent proprietor wanted to expand this point in view of the board's provisional opinion. It filed documents L5 and L6 as further evidence of this technique as being standard both at the priority date of the contested patent and subsequently.
- 1.2 During the oral proceedings the opponents requested that documents L1 to L6 be not admitted. These documents were published after the priority date and could not demonstrate the knowledge of the skilled person at the priority date. As a basic principle, it was not allowable to interpret the disclosure of document D16 in view of these documents published after the priority date. Moreover, secondary evidence at such late stage of the procedure was in general not admissible.

1.3 The board, exercising its discretion under Article 13(1) RPBA, admitted documents L1 to L6 into the proceedings. Under the EPC and according to established jurisprudence, secondary evidence, which is filed at a late stage of proceedings, is not in general excluded from being admitted into the proceedings. As for any other evidence, the admission depends on the circumstances of the case. The board is of the opinion that none of the documents L1 to L6 introduces complex or surprising matter. These documents were filed after the oral proceedings had been arranged and one month before the date of the oral proceedings. However, since the board considers that the board and the opponents could be reasonably expected to deal with these documents in the available period, Article 13(3) RPBA does not apply in the present case.

2. Main request - claim 1

2.1 Novelty (Article 54(1) EPC 1973)

2.1.1 The opponents did not put into question the novelty of the subject-matter of claim 1.

2.2 Inventive step (Article 56 EPC 1973)

2.2.1 Claim 1 of the main request corresponds to claim 1 of the main request underlying the contested decision. Both parties and the opposition division agreed that document **D16** is the closest prior art document. Document D16 discloses a method of telemicroscopy by digitally scanning collections of full microscope slides under high power (cf. page 1, left column to page 2, left column, penultimate paragraph), the scanned digital data is compressed by a wavelet

compression technique which allows to decompress only small portions of the image and to decompress it to any lower resolution than the scanned resolution, because the compressed image is stored as a sequence of images of varying resolutions (cf. page 3, right column, second to fourth paragraph). The workstation disclosed in document D16 presents a graphical user interface showing a display panel with a selected portion of a slide at the desired high resolution, and a thumbnail window presenting a small, low magnification version of the entire slide. The thumbnail window comprises a small box which indicates the position of the high resolution image within the slide (cf. page 4, left column, last paragraph to right column, first paragraph; figure 3). In response to user selection in the thumbnail window the corresponding high resolution image data is decompressed and transmitted to the workstation. The parties appear to concur with the opposition division that the subject-matter of claim 1 **differs** from the disclosure of document D16 only in that the way of generating and storing the low resolution image underlying the thumbnail window is not disclosed in document D16.

- 2.2.2 The proprietor concedes that the person skilled in the art starting from the teaching of document D16 could arrive at the claimed invention, but would not have arrived at the invention in an obvious way. The patent proprietor put essentially forward:
- It would be extremely difficult to implement in view of the large volume of data (7GB for one slide) and the multiple focal planes (35 GB for 5 planes) a single low resolution image.
  - Even if the image data in document D16 was processed to lower resolution this low resolution image would not

be suitable for the pathologist to identify the relevant portions of the image.

- There was an industry standard technique available that would have been much simpler, i.e. the person skilled in the art instead would simply use a separate scanning step with a low magnification lens to get the low resolution image for the thumbnail; document D1, amongst other documents, evidenced this practice which remained standard even today (cf. grounds of appeal, page 2, penultimate paragraph). During the oral proceedings the patent proprietor emphasized that it would only be with hindsight that the person skilled in the art processed the data of document D16 to get the complete thumbnail image. The industry standard corresponded to the classical use of a microscope where the user first looks at the complete slide and selects a portion to examine it in detail. Therefore the pathologist would first look at the macro overview image of the slide to identify a region for microscopic inspection (cf. also patent proprietors letter dated 14 October 2016, point 2.9).

- The few hints in document D16 suggested that the low resolution image in the thumbnail was not created using the collected high resolution image data; document D16 appeared to discuss a square slide which did not exist; the person skilled in the art understood that the square image obtained by the system of document D16 was that of a specimen within the slide and that a low magnification lens would be used to identify where the specimen was located on the slide (cf. grounds of appeal, page 5, second paragraph). The patent proprietor pointed during the oral proceedings to the first sentence of the abstract of document D16 where it was stated that the virtual microscope provided a realistic emulation of a high power light microscope. This was a clear indication that in the virtual

microscope of document D16 a macroscopic overview image was taken.

- During the oral proceedings the patent proprietor identified as key issue that the person skilled in the art starting from document D16 certainly could process the high resolution image to get a low resolution image, but he would not do so. It referred in particular to documents L1 and L3 which showed that the authors of document D16 had not used image processing to get the low resolution overview image. In document L1 the authors of document D16 did not use the wavelet compression, because it was more complex than expected, and this document suggested generating a low resolution thumbnail from higher resolution images as a new technique (cf. L1, page 914, left column, penultimate paragraph; page 916, left column, second paragraph). The presentation slides of document L3, in particular page 38, clearly evidenced that the authors of document D16 used even two years later still a low power lens to capture a thumbnail image. See also patent proprietor's letter dated 14 October 2016, points 2.4 to 2.7.

2.2.3 The opponents in their grounds of appeal agreed with the opposition division that starting from document D16 the person skilled in the art would easily arrive at the claimed subject-matter. The opponents essentially argued:

- The large volume image data was already addressed in document D16 and this document also provided information how such volume of data could be treated, in particular with parallel processing systems (cf. letter dated 25 January 2013, page 4, 3. paragraph); the publication date of document D16 was just one year before the priority date of the present patent and the patent did not address the question how the large volume of image data could be treated; it had to be

assumed that the person skilled in the art at the priority date knew how to process these data volumes; otherwise there would be a lack of disclosure, because the processing means did not develop tremendously within this year; when it could be assumed that the person skilled in the art knew how to implement the data processing in the patent then it equally had no difficulty to realize the data processing of document D16 (cf. letter dated 25 January 2013, page 4, 4. paragraph).

- The wavelet compression method used in document D16 was particularly suitable to create low resolution images from the compressed high resolution image; document D16 did not only provide the means to provide a low resolution image from the compressed high resolution image but also suggested to use this option; this low resolution image implied a lower data volume which could easily be treated (cf. letter dated 25 January 2013, page 5, 2. paragraph to page 6, first paragraph).

- With respect to the asserted industry standard to produce a low resolution image by scanning the slide with a low magnifying lens, the opponents pointed to the argument of the opposition division that this would lead to images at different points at time which should be avoided (cf. letter dated 25 January 2013, page 6, second paragraph). During the oral proceedings the opponents emphasized that the microscopic specimen can rapidly change appearance as already known from document D8, column 1, lines 37 to 46.

- Since document D16 suggested providing the data for several users it would also be obvious to store the low resolution overview in the system (cf. letter dated 25 January 2013, page 6, last paragraph).

- During the oral proceedings the opponent emphasized that the patent didn't disclose more than document D16.

In the patent column 5, lines 12-14 it was only disclosed that a decimated copy of the high resolution image was created. This meant that only part of the image information was taken, e.g. only every 10th pixel. Document D16 did not mention taking pictures of low resolution, it only disclosed that a low resolution image could be created from compressed high resolution images. It was evident that a satisfactory overview image was processed only from one focal plane. The fact that the authors of document D16 discovered technical difficulties in the implementation of the method, as mentioned in document L1, did not dissipate the disclosure of document D16. The patent did not disclose how the difficulties could be overcome, but simply disclosed to generate low resolution data from high resolution data.

- 2.2.4 The board concurs with the position of the opponents. Document D16 does not specify how exactly the low resolution overview image is generated. But document D16 addresses the question to process large volume data and proposes solutions in the form of parallel processing. Document D16 also discloses to create lower resolution images from the compressed high resolution data. There aren't any hints in document D16 that the low resolution overview image should be produced differently or that the generation from the high resolution data is somehow not appropriate. The fact that the authors of document D16 later might have detected difficulties in the implementation of the method does not alter the idea presented in document D16. A person skilled in the art confronted with the problem how to create the low resolution thumbnail image in document D16 **would** therefore consider the option to generate the low resolution overview image from the high resolution image. Also the patent



proprietor has conceded that the person skilled in the art could generate the low resolution overview image from the high resolution image once it has been considered. Therefore, the subject-matter of claim 1 does not involve an inventive step.

3. First auxiliary request - claim 1 - inventive step  
(Article 56 EPC 1973)

3.1 The first auxiliary request of the patent proprietor that the opponents' appeal be dismissed means that it requests that the decision of the opposition division to maintain the patent in amended form with the documents according to the first auxiliary request underlying the decision under appeal be not set aside.

3.2 The method of independent claim 1 includes the additional steps:  
"obtaining a continuous sequence of successive images of the specimen by advancing the field of view of the high power objective lens (14) of the microscope (12) stepwise across the specimen and acquiring an image of each field of view"; and  
"processing the image data acquired for each image of each field of view to remove peripheral shading around each image of each field of view, and storing the processed data in a datastore".

3.3 There is agreement between the parties that the first additional feature is disclosed in document D16 but not the second additional feature.  
The parties also acknowledged that shading is typically present in a microscopic image and that methods to remove the shading are generally known in the art.

3.4 The opposition division determined a synergistic effect of the removal of the peripheral shading with the feature of obtaining a continuous sequence of successive images of the specimen by advancing the field of view stepwise across the specimen and acquiring an image of each field of view. This led to a high number of disturbing abnormalities in form of cross-like shadows. Document D16 provided no hint that this processing might be necessary or would lead to an advantageous effect in combination with the stepwise taking of a sequence of images. Therefore, the opposition division considered the subject-matter of claim 1 involving an inventive step.

3.5 The opponents in their grounds of appeal did not agree. The problem with respect to document D16 could be seen to increase the quality of the low resolution overview image. This consideration however could not be found in the patent, paragraph 0030 mentioning only the shading of the high resolution image and its removal. This passage however pointed to the fact that consultants preferred to see the raw image for fear of loss of important details. Whether the person skilled in the art would apply the compensation of the shading was therefore just a question of usefulness and effort. But it would not lead to a surprising effect (cf. page 5, first paragraph).

During the oral proceedings the opponents put forward that it was known to remove the shading of the microscopic images if desired. They referred to paragraph 0030 of the contested patent where it was stated that shading can be removed if desired. They also referred to document D8, column 9, last paragraph to column 10, first paragraph and figure 2 where it was disclosed that "*a shading correction may be needed to*

*eliminate the edge effects between adjacent image segments, particularly if quantitative photometric density measurements are to be made directly from the image".* It was therefore obvious to remove the shading at the edges of segments when they appeared. The contested patent just disclosed that shading might be removed if it was disturbing, but it did not disclose a surprising effect, such as e.g. that the removal of the peripheral shading did not result in a loss of detail.

- 3.6 The proprietor argued in its letter dated 21 January 2013 that the cause of the shading was the unevenness in the specimen illumination as explained in paragraph 0030 of the patent. The proprietor conceded that processing images to remove peripheral shading was known. The patent did not implement a new method of removing peripheral shading. The person skilled in the art was aware of a wide range of different kinds of processing techniques, but this did not mean that the implementation and specific choice of any such technique was obvious (cf. page 2, 2. paragraph). At the filing date it was considered an important issue to see the raw image for analysis, and the inventors surprisingly believed that digital processing would be advantageous (cf. page 2, 3. paragraph). However, the specific combination of processing with stepwise obtaining a sequence of high resolution images provided the advantages of the present invention, as confirmed by the opposition division in its decision, point 4.4.3 (cf. page 2, penultimate paragraph). The shading in the image was not necessarily immediately visible to the human eye on the composite image. However, since the low resolution image comprised the pieced-together tile image, the abnormalities became visible in the navigation map and the removal of the shading became significantly more useful in the low resolution image

of the navigation map. Although raw data was initially preferred according to the invention, removal of the shading from low and high resolution composite images was preferred for diagnostic purposes (cf. paragraph bridging pages 2 and 3).

In reply to the communication of the board annexed to the summons to oral proceedings, where the board identified the question whether it did involve an inventive step to recognize the desire to remove the shading in the method of D16, the proprietor emphasized that D16 did not disclose digitally processing stitched high resolution digital image data to obtain a relatively low resolution copy of the image data for the whole of the specimen, to be stored and used as a thumbnail image. The patent proprietor was therefore of the opinion that the question posed by the board had a degree of hindsight. Removal of peripheral shading became particularly advantageous when the thumbnail image was generated from the high resolution image data. Removing the peripheral shading in high resolution images for use in a system in accordance with D16 would, at best, be an arbitrary choice. There was no motivation for the skilled person to even appreciate the existence of this shading, let alone consider dealing with it, starting from the system of D16 (cf. letter dated 14 October 2016, point 3.2).

During oral proceedings the proprietor pointed to the fact that the subject-matter of claim 1 differed from the disclosure of document D16 in two features, first the low resolution overview image being generated by processing the high resolution image and second removing the peripheral shading of the segments. These features were not independent and the problem with respect to document D16 had to be formulated to avoid

hindsight, i.e. without reference to the shading. The problem was therefore to generate a low resolution overview image suitable for telemicroscopy. Then, in a first step the person skilled in the art had to find the processing of the high resolution image to generate the low resolution image. In a second step it had to identify the peripheral shading in the low resolution image to be disturbing for the pathologist, and to remove the peripheral shading from the high resolution images where it was hardly visible. Document D8 did not suggest removing the shading from a low resolution overview image, because it did not disclose such an overview image.

3.7 After careful consideration of the arguments brought forward by the parties, the board comes to the conclusion that the subject-matter of claim 1 involves an inventive step.

3.7.1 The board agrees with the patent proprietor that the question in the provisional opinion of the board, whether it does involve an inventive step to recognize the desire to remove the shading in the method of document D16, had a degree of hindsight. Document D16 discloses a method of taking a plurality of high resolution images and having a thumbnail overview image. The claimed method differs in two steps:

- digitally processing the high resolution digital image data to obtain a relatively low resolution copy (30) of the image data for the whole of the specimen; and
- processing the image data acquired for each image of each field of view to remove peripheral shading around each image of each field of view, and storing the processed data in a datastore.

The **effect** of the one feature is to obtain the overview image (D16 is silent how the thumbnail image is created), and the effect of the other feature is to increase the image quality of the overview image (cf. paragraph 0030 of the contested patent which makes reference to the peripheral shading due to unevenness in specimen illumination in figure 2, where an overview image is shown).

3.7.2 Document D16 does not mention any details of the small, low magnification version of the entire slide in the thumb-nail window. In particular it does not address the image quality of the low magnification image. Starting from document D16 the person skilled in the art is therefore confronted with the **problem** to generate a low resolution overview image suitable for telemicroscopy.

3.7.3 As concluded above it is obvious to generate the low magnification image by processing the high resolution images (cf. point 2.4 above). But the board cannot recognize any incentive in document D16 to increase the image quality of the low resolution image so that it better suits telemicroscopy. The peripheral shading in the low magnification image is not even implicitly disclosed in document D16, because document D16 does not disclose to generate the low magnification image from the high resolution image. This was not disputed by the parties. The person skilled in the art does not find any other hint in document D16 that the low magnification image requires a particular quality feature. The board cannot see either in document D16 an incentive processing the high resolution image with the aim to remove peripheral shading of the high resolution image itself or to check whether peripheral shading

could be disturbing in the high resolution image. If this would be the case, the peripheral shading in the low magnification image would consequently also be removed once it is generated from the high resolution image. Document D16 is completely silent with respect to the image quality. Without knowledge of the claimed invention, the person skilled in the art would not examine whether the peripheral shading could be disturbing. Only when the person skilled in the art, studying document D16, would get to the point that the peripheral shading could be of any relevance, he would examine whether the peripheral shading is somehow disturbing and then the person skilled in the art has indeed no problem to remove the shading around each image tile.

3.7.4 An incentive to provide a particular image quality of the low magnification image in document D16 could therefore only come from another document or the general knowledge of the person skilled in the art. Document D8, referred to by the opponents, discloses that *"a shading correction may be needed to eliminate the edge effects between adjacent image segments, particularly if quantitative photometric density measurements are to be made directly from the image"*. But, as indicated by the proprietor, this document does not disclose a low magnification image and the correction of the shading in document D8 is proposed to allow particular measurements directly from the high resolution image, i.e. for a different purpose.

3.8 Therefore, the board comes to the conclusion that the subject-matter of claim 1 of the first auxiliary request involves an inventive step.

4. Independent claim 6 of the first auxiliary request defines a telemicroscopy apparatus adapted to perform the method steps of claim 1 of the first auxiliary request. Independent claim 11 defines a computer readable medium comprising a computer program for carrying out a method of telemicroscopy as claimed in any one of claims 1 to 5. Their subject-matter therefore also involves an inventive step.
5. Claims 2 to 5 and claims 7 to 10 are dependent on claims 1 and 6 respectively. Their subject-matter therefore also involves an inventive step.
6. The board therefore comes to the conclusion that the patent is to be maintained in amended form with the documents according to the first auxiliary request underlying the decision under appeal. Since, in its interlocutory decision, the opposition division came to the conclusion that the patent can be maintained in amended form on the basis of these documents, the board sees no reason to set aside the decision under appeal. Therefore, the appeal of the proprietor and the appeal of the opponents have to be dismissed.

## **Order**

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

The appeals of the patent proprietor and the opponents are dismissed.



The Registrar:

The Chairman:



M. Kiehl

R. Bekkering

Decision electronically authenticated