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**Datasheet for the decision  
of 24 January 2012**

**Case Number:** T 2124/08 - 3.5.04

**Application Number:** 04783859.4

**Publication Number:** 1649427

**IPC:** G06T11/60

**Language of the proceedings:** EN

**Title of invention:**

IMAGE CROPPING SYSTEM AND METHOD

**Applicant:**

VISTAPRINT TECHNOLOGIES LIMITED

**Headword:**

**Relevant legal provisions:**

EPC 1973 Art. 56

**Keyword:**

Inventive step (main, first and second auxiliary requests -  
no)

**Decisions cited:**

T 0641/00

**Catchword:**

see point 5



Case Number: T2124/08 - 3.5.04

**D E C I S I O N**  
**of the Technical Board of Appeal 3.5.04**  
**of 24 January 2012**

**Appellant:**  
(Applicant)

VISTAPRINT TECHNOLOGIES LIMITED  
Canon's Court,  
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**Representative:**

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**Decision under appeal:**

**Decision of the Examining Division of the  
European Patent Office posted 12 June 2008  
refusing European patent application No.  
04783859.4 pursuant to Article 97(2) EPC.**

**Composition of the Board:**

**Chairman:** F. Edlinger  
**Members:** R. Gerdes  
C. Vallet

## Summary of Facts and Submissions

- I. The appeal is against the decision of the examining division to refuse European patent application No. 04 783 859.4.
- II. The decision under appeal was based on the ground that the subject-matter of the claims according to the applicant's sole request lacked inventive step in view of the prior art document
- D1: US 2002/0030634 A1.
- III. In a communication annexed to the summons to oral proceedings the board introduced the document below, which had been cited in the procedure before the US Patent Office against the application whose priority was claimed for the present European application:
- D2: US 6 587 596 B1.
- IV. Oral proceedings were held on 24 January 2012. During the oral proceedings the appellant submitted new claims of a main request, and of a first and a second auxiliary request.
- V. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims of the main request, alternatively on the basis of the claims of one of the auxiliary request 1 or auxiliary request 2, all submitted in the oral proceedings. As a last resort, in case the considerations of T 641/00 were to play a decisive role in the board's decision on the present case, that the

following questions submitted in the oral proceedings be referred to the Enlarged Board of Appeal:

"1. Can features of a claim for a European Patent application, which, when taken in isolation, belong to the matters excluded from patentability by Art. 52 (2) EPC, be ignored during consideration of *obviousness* under Art. 56 EPC?

2. If the answer is in the affirmative, are features, which *contribute* to the *technical character* of a claimed invention to be considered in the consideration of *obviousness* under Art. 56 EPC even if such features, when taken in isolation, belong to the matters excluded from patentability by Art. 52 (2) EPC?

3. If the answer is in the affirmative, what *constitutes* contribution of a feature in a claim, which, when taken in isolation, belong to the matters excluded from patentability by Art. 52 (2) EPC, to the technical character of a claimed invention and what level of contribution to the technical character of a claimed invention is required for such feature to be considered in the consideration of *obviousness* under Art. 56 EPC."

VI. Claim 1 of the main request reads as follows:

"A computer-implemented method for facilitating user customization of the image content of an image container (302, 304) in an electronic product design, the method comprising displaying an electronic product design to a user, the design containing at least one or more user-customizable image containers (302, 304), each image container (302, 304) having a known height and width,

and content that is a cropped portion of a base image associated with the image container (302, 304), and allowing the user to select an image container in the electronic product design (300) for customization of the content of the image container (302, 304), characterized in that, in response to a user request to modify the cropped portion of the base image associated with the selected image container (302, 304), displaying to the user the base image associated with the selected image container (302, 304) and a cropping indicator (504, 704, 804, 902) having the same ratio of height to width as the selected image container (302, 304) and positioned to indicate to the user the cropped portion of the base image that is the current content of the image container (302, 304)."

VII. Claim 1 of the first auxiliary request has the same wording as claim 1 of the main request with the following additional feature appended to it:

"..., wherein the user is allowed to modify the size of the cropping indicator (504, 704, 804, 902) relative to the base image, and wherein the user is prevented from changing the ratio of cropping indicator height to cropping indicator width during modification of the cropping indicator size."

VIII. Claim 1 of the second auxiliary request reads as follows (amendments to claim 1 of the first auxiliary request have been indicated by the board by "underlining" the new or amended passages):

"A computer-implemented method for facilitating user customization of the image content of an image

container (302, 304) in an electronic product design, the method comprising displaying an electronic product design to a user, the design containing at least one or more user-customizable image containers (302, 304), each image container (302, 304) having a known height and width, and content that is a cropped portion of a base image associated with the image container (302, 304), and allowing the user to select an image container in the electronic product design (300) for customization of the content of the image container (302, 304), characterized in that, in response to a user request to modify the cropped portion of the base image associated with the selected image container (302, 304), displaying to the user the base image associated with the selected image container (302, 304) and a cropping indicator (504, 704, 804, 902) superimposed upon the base image and having the same ratio of height to width as the selected image container (302, 304) and positioned to indicate to the user the cropped portion of the base image that is the current content of the image container (302, 304), wherein the user is allowed to modify the size and/or position of the cropping indicator (504, 704, 804, 902) relative to the base image, and wherein the user is prevented from changing the ratio of cropping indicator height to cropping indicator width during modification of the cropping indicator size, and wherein, upon completion of a cropping indicator modification, the image content of image container (302, 304) being updated to reflect the portion of the base image indicated by the modified cropping indicator (504, 704, 804, 902)."

IX. The appellant's arguments with respect to inventive step of the subject-matter of claim 1 of the main request may be summarised as follows:

D1 teaches that cropping constitutes a lossy operation, in which only the part of the original image inside the cropping window is preserved when the cropping operation is completed. If information removed during the cropping process is required again later, it cannot be recovered from the cropped image. Hence, if the cropping window is slightly modified, the whole process of cropping has to resume from the beginning, i.e. the original full image has to be retrieved again. It is difficult to modify only slightly the cropping window because information concerning the position of the cropping window relative to the original image is lost. D1 shows that the inner frame (47b) can be resized and repositioned relative to the outer frame (47a), but this does not imply a change of content of the inner frame (see figure 13 and paragraphs [0112] and [0115]).

The technical problem starting from D1 was to improve the user-friendliness of the method for producing an electronic product design.

D2 distinguishes between images in general, which may be cropped, and preview images which are images of the final product (see figures 8a and 8b). Cropped images as shown in figures 9a and 9b are constituents of preview images. The "undo" function in D2 only retrieves preview images and cannot be used to reverse changes made by the cropping tool (column 21, lines 13 to 55). Using the "undo" function in D2 does not result in the displaying of a crop window at the same position and size as last selected by the user.

- X. The appellant argued that the amendments of claim 1 of the first auxiliary request were intended to overcome further objections raised by the board, but did not change the arguments for inventive step.
  
- XI. With respect to claim 1 of the second auxiliary request the appellant argued that the major amendment to the claim was the instantaneous updating of the image content upon completion of cropping indicator modification (reference was made to paragraph [0028] and figure 5). The technical effect associated with this feature was that the user got immediate feedback without having to perform any further action.

### **Reasons for the Decision**

- 1. The appeal is admissible.
  
- 2. *Main request: inventive step (Article 56 EPC 1973)*
  - 2.1 It is not disputed that D1 may be considered as reflecting the closest prior art with respect to the subject-matter of claim 1.
  
  - 2.2 D1 discloses a computer-implemented method for composing an electronic product such as a synthetic image (see paragraphs [0007], [0008], [0038] and figures 1, 11 and 13). The product design starts by selecting and displaying a template which contains image containers, each of a known height and width, that are designated as outer and inner frames. In order to modify the content of an image container the corresponding frame and one of several images represented by thumbnail views (39) are selected by the user. The selected image is displayed in a main display



area (37) as a base image. A portion of the base image is cut out using a cropping operation and pasted into the selected frame of the template (see D1, figure 5 together with paragraphs [0053] to [0055], [0068], [0069] and [0077] to [0079]).

- 2.3 D1 discloses two options to revise the design of the synthetic image. The first alternative is to replace completely the content of an image container. This option involves a repetition of the process of selecting, cropping and pasting an image of a selected frame (see paragraph [0110]).

The second option is to modify the position or size of an inner frame relative to the outer frame. To allow for these modifications, "image data of the image pasted in the outer frame" and "image data of the image pasted in the inner frame" are stored in separate files (see D1, paragraph [0114]). In addition, location data representing the position of the inner frame relative to the outer frame is stored (see paragraphs [0112], [0114] and [0115]). D1 implies that repositioning of the inner frame makes it necessary to store those parts of the outer frame image which were initially covered by the inner frame. Otherwise, pixels of the outer frame that were hidden before a repositioning of the inner frame could not be made visible. However, image information outside the initially selected cropping window need not necessarily be stored for the purpose of repositioning and resizing the same content. Cropping of the base image for the inner frame can therefore be characterised as a lossy operation in the sense that, after the cropped portion is pasted into the inner frame, the cropping operation cannot be resumed using the base image together with the current settings of the cropping window.

- 2.4 Hence, D1 discloses a method in accordance with the pre-characterising portion of claim 1. This was not contested. But D1 does not disclose the feature of the characterising portion of claim 1.
- 2.5 The board concurs with the appellant that the associated technical problem may be seen as being how to improve the user-friendliness of the above method known from D1.
- 2.6 D2 also concerns a computer-implemented method for user customisation of image content in the design of electronic products such as image prints (column 7, line 48 to column 8, line 31). Images are uploaded from a client computer to a server, where they are stored in a database together with attributes indicating how the images are to be processed and embodied in the electronic product. Image attributes may relate to "cropping information such as the boundary, shape and orientation of the selected portion of the image" (see column 21, lines 7 to 13). New attributes are stored on the server every time a modification of the image is carried out on the client computer. These attributes together with the stored image can be used to generate a preview image indicating what the final product will look like "even if the user accesses the ... image after a substantial time period has passed", and to "resume whatever editing operations the user was performing when the user last accessed the image" (D2, column 20, line 37 to column 21, line 5). Because a history of the modification process is stored, changes to the attributes can be undone (D2, column 6, lines 29 to 45 and column 20, lines 36 to 63).

- 2.7 Consequently, cropping operations according to D2 only affect the corresponding attributes on the server but do not change the content of the base image that is stored on the server. This approach increases the flexibility and user-friendliness of the image processing software, which is, for example, illustrated by the fact that all modifications of image attributes can be undone and that "the user can resume manipulating the product attributes associated with the image starting from the point where the user was when the user last accessed the image" (see D2, column 6, lines 24 to 29 and column 21, lines 3 to 5).
- 2.8 A skilled person, starting from D1 and trying to improve user-friendliness, would have considered adopting the storage concept of D2 in view of the advantage that image manipulation can then be resumed at any time as in D2. This did not require major changes since D1 already discloses separate storage of image attributes, namely of the inner and outer frame image and location data. Whereas the storage concept of D1 only allows for repositioning and resizing of the inner frame with respect to the outer frame after completion of the initial design process (see D1, paragraph [0115]), D2 extends this concept and provides for an unlimited resumption of the design process at any time.
- 2.9 The arguments of the appellant did not convince the board. Details of a cropping operation are disclosed in D2, figures 9a and 9b and column 13, line 26 to column 15, line 16. According to this disclosure the image is always displayed as a base image together with a cropping indicator ("crop mask" in D2), which is superimposed on the base image and which indicates the portion of the base image "that will be visible in an

image-based product" (D2, column 13, line 32). There is no indication in D2 that a cropping (or recropping) operation could start from a different image than the base image if the user intends to modify the cropping. But D2 consistently describes the image editing process as a repetitive process which can be resumed at any time "starting from the point where the user was when the user last accessed the image" (see D2, column 6, lines 23 to 28; column 20, line 66 to column 21, line 5). The board thus considers that a skilled person would understand this disclosure of D2 as an indication that it enables an "undo" functionality in that, if a user is not satisfied with the retrieved preview image, a recropping operation starting from a previous image can be carried out in the same way as described for a cropping operation.

2.10 The board concludes that the subject-matter of claim 1 at the priority date was obvious to a person skilled in the art having regard to the state of the art in D1 and D2 and thus lacks inventive step.

3. *First auxiliary request: inventive step (Article 56 EPC 1973)*

The additional features of claim 1 of the first auxiliary request (see point VII above) are disclosed in D1 (see paragraphs [0013], [0083] and [0099]). They do not change the board's judgment on inventive step when these features are combined with those of claim 1 of the main request. The appellant acknowledged that these features did not change the arguments for inventive step (see point X above). The board thus considers that also the subject-matter of claim 1 of the auxiliary request lacks inventive step.

4. *Second auxiliary request: inventive step (Article 56 EPC 1973)*

4.1 Claim 1 of the second auxiliary request corresponds to claim 1 of the first auxiliary request and defines in addition that:

- (a) the cropping indicator is superimposed upon the base image,
- (b) the user is allowed to modify the position of the cropping indicator with respect to the base image,
- (c) upon completion of a cropping indicator modification, the image content of the image container is updated to reflect the portion of the base image indicated by the modified cropping indicator.

4.2 The superimposed cropping indicator of feature (a) is a common feature and, for example, disclosed in D1 (figure 5: 84). Similarly, a modification of the cropping window position is common practice for cropping operations (see D1, paragraphs [0081], [0099] and D2, column 14, lines 16 to 21). Finally, D1 (paragraph [0061]) also shows that the content of the selected image container is updated upon completion of a cropping indicator modification. In D1 the image content is updated by operating the paste button thereby indicating completion of the cropping indicator modification.

The additional features relating to details of the cropping operation are therefore known from D1 and D2 in the context of an initial image editing process. As set out above (see point 3.2), D2 teaches that image

editing may resume at any time. Hence, the specification of these features in the context of an image modification does not justify an inventive step.

4.3 The appellant argued that feature (c) should be understood in the sense of paragraph [0028] of the application. According to this passage, upon releasing the crop box, the image content of the image area was instantaneously updated to reflect the change in the content of the crop box. In contrast, according to D1, the selection of the paste button (56) was necessary as a further step. The board is not convinced by this argument. "[C]ompletion of a cropping indicator modification" as specified in claim 1 and releasing the crop box (in the context of conventional click-and-drag techniques, as in paragraph [0028]) are not identical operations. Activating the paste button completes the cropping indicator modification and is therefore one way to implement feature (c). Hence, also feature (c) is disclosed in D1.

4.4 The board concludes that also the subject-matter of claim 1 of the second auxiliary request lacks inventive step in view of documents D1 and D2.

5. *Referral to the Enlarged Board of Appeal*

In the communication accompanying the summons to oral proceedings, the board, pointing out that some of the features of the claimed inventions might not contribute to the solution of a technical problem, drew attention to the principles concerning non-technical subject-matter outlined in decision T 641/00. However, since the state of the art, as evidenced by D1 and D2, discloses technical and non-technical considerations in very similar circumstances, the issue of which

distinguishing features contribute to the technical solution of the problem did not arise in the oral proceedings and is not relevant for the board's decision. Hence, the appellant's conditional request that questions be referred to the Enlarged Board of Appeal need not be given any further consideration.

## Order

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

The appeal is dismissed.

The Registrar:

The Chairman:



K. Boelicke

F. Edlinger

Decision electronically authenticated