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Datasheet for the decision of 2 August 2016

Case Number: T 2434/10 - 3.5.07

Application Number: 04812723.7

Publication Number: 1702274

IPC: G06F17/21

Language of the proceedings: EN

Title of invention:
System and method for custom product design

Applicant:
Cimpress Schweiz GmbH

Headword:
Custom product design/CIMPRESS SCHWEIZ

Relevant legal provisions:
EPC Art. 84, 123(2), 56

Keyword:
Claims - clarity after amendment (yes)
Inventive step - after amendment (yes)
Patentable invention - presentation of information as such (no)

Decisions cited:
T 0962/98, T 0643/00, T 2185/10

Catchword:

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Beschwerdekammern
Boards of Appeal
Chambres de recours

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 2434/10 - 3.5.07

D E C I S I O N
of Technical Board of Appeal 3.5.07
of 2 August 2016

Appellant: (Applicant)	Cimpress Schweiz GmbH Technoparkstr.5 8406 Winterthur (CH)
Representative:	Fleuchaus, Michael A. Fleuchaus & Gallo Partnerschaft mbB Patent- und Rechtsanwälte Steinerstrasse 15/A 81369 München (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 20 July 2010 refusing European patent application No. 04812723.7 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	M. Rognoni
Members:	P. San-Bento Furtado
	L. Bühler

Summary of Facts and Submissions

I. The appeal lies from the decision of the Examining Division to refuse European patent application No. 04812723.7, filed as international application PCT/US 2004/040275 published as WO 2005/066833, for lack of inventive step, Articles 52(1) and 56 EPC, of the subject-matter of the independent claims of a main request, and of two auxiliary requests, over the prior art disclosed in document
D1: EP 1345143 A1, published on 17 September 2003.

The Examining Division considered some of the claimed features to be related to non-technical user requirements. In an *obiter dictum* it provided further comments to the effect that none of the dependent claims of the three requests appeared to define inventive subject-matter.

II. The applicant, formerly VistaPrint Technologies Limited, filed a notice of appeal on 17 September 2010.

III. In the statement of grounds of appeal, the appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of one of the main request and first and second auxiliary requests considered in the contested decision and resubmitted with the grounds of appeal, or of one of the third and fourth auxiliary requests submitted with the grounds of appeal.

IV. With effect from 26 August 2015 the EPO registered a change of the company name of the applicant from Vistaprint Schweiz GmbH to Cimpress Schweiz GmbH.

V. In a communication accompanying a summons to oral proceedings, the Board cited document D1 and the following documents:
D2: US 2003/0182402 A1, published on 25 September 2003,
D3: EP 0878956 A1, published on 18 November 1998,
D5: WO 03/019406 A2, published on 6 March 2003.
D6: WO 01/55869 A1, published on 2 August 2001.

Documents D2, D3 and D5 had been cited in the first-instance proceedings. Document D6 was introduced by the Board.

The Board expressed the view that claim 1 of each of the requests did not seem to fulfil the requirements of Articles 84 and 123(2) EPC. The subject-matter of claim 1 of each of the requests did not involve an inventive step over the disclosure of document D1 in combination with the common general knowledge of the skilled person. Documents D2, D3, D5 and D6 were cited to illustrate the common general knowledge or individual features of the claims.

VI. With a letter of reply the appellant submitted new first to fourth auxiliary requests to replace the previous auxiliary requests on file.

VII. Oral proceedings were held on 2 August 2016, during which the appellant submitted amended auxiliary requests and afterwards, in reaction to the preliminary results of the Board's assessment of the requests at the oral proceedings, a new main request replacing all previous requests. At the end of the oral proceedings, the chairman pronounced the Board's decision.

VIII. The appellant's final request was that the decision under appeal be set aside and that a patent be granted on the basis of the main request filed during the oral proceedings of 2 August 2016.

IX. Claim 1 of the sole request reads as follows:

"A computer-implemented method performed by a server computer system (110) in communication with a client computer (100) via a network (120) for use in creating an electronic design of a two-sided product (210, 220, 230, 240, 250, 260) intended for subsequent printing, the method comprising

providing an image of a first side of the product for displaying to the user of the client computer (100) and for customization by the user,

providing a tool (304) allowing the user to supply at least text to be printed on the first side,

providing an image of a second side of the product for displaying to the user and for customization by the user, the second side of the product having a map area where a map will be printed when the product is printed,

providing a tool (702, 704, 706) allowing the user to identify a location to be included within the map that will be printed in the map area,

making electronic map information available to the server computer system (110), the map information containing information covering a relatively large geographical area and being adapted to produce relatively high resolution maps,

in response to information received from the client computer system (100) identifying a location within the relatively large geographical area, obtaining a relatively high resolution user map from the map information, the user map covering a relatively small

geographical area that includes at least the identified location,

generating a lower resolution display map version of the user map from the obtained user map, the display map being suitable for displaying at the client computer system (100),

transmitting only the display map to the client computer system (100) for displaying to the user,

receiving a description of the product design from the client computer system (100), the description identifying at least a portion of the display map,

associating the identified portion of the display map with the corresponding higher resolution user map information such that when the product is printed the map area on the second side of the product design will be printed using the higher resolution user map information,

wherein said information received from the client computer system (100) includes zoom level information as well as height and width information of the map area or a container identifier allowing the server computer system (110) to determine the height to width ratio of the map area, and

wherein said user map is obtained at a height to width ratio corresponding to the height to width ratio of the map area and at the selected zoom level."

X. Independent claim 7 reads as follows:

"A computerized system for use in creating an electronic design of a two-sided product (210, 220, 230, 240, 250, 260) by a server computer system (110) in communication with a client computer (100) via a network (120) intended for subsequent printing, the system comprising

means for providing an image of a first side of the product for displaying to the user of a client computer (100) and for customization by the user,

means for providing a tool (304) allowing the user to supply at least text to be printed on the first side,

means for providing an image of a second side of the product for displaying to the user and for customization by the user, the second side of the product having a map area where a map will be printed when the product is printed,

means for providing a tool (702, 704, 706) allowing the user to identify a location to be included within the map that will be printed in the map area,

means for making electronic map information available to the server computer system (110), the map information containing information covering a relatively large geographical area and being adapted to produce relatively high resolution maps,

means, responsive to information received from the client computer system (100) identifying a location within the relatively large geographical area, for obtaining a relatively high resolution user map from the map information, the user map covering a relatively small geographical area that includes at least the identified location,

means for generating a lower resolution display map version of the user map from the obtained user map, the display map being suitable for displaying at the client computer system (100),

means for transmitting only the display map to the client computer system (100) for displaying to the user,

means for receiving a description of the product design from the client computer system (100), the

description identifying at least a portion of the display map,

means for associating the identified portion of the display map with the corresponding higher resolution user map information such that the product design will be printed using the higher resolution user map information,

wherein said information received from the client computer system (100) includes zoom level information as well as height and width information of the map area or a container identifier allowing the server computer system (110) to determine the height to width ratio of the map area, and

wherein said user map is obtained at a height to width ratio corresponding to the height to width ratio of the map area and at the selected zoom level."

XI. Method claims 2 to 4 and 6 are dependent upon claim 1. Claim 5 depends on claim 4. Dependent claims 8 to 12 recite system features corresponding to the method features of respective dependent claims 2 to 6.

XII. The appellant's arguments relevant to this decision are discussed in detail below.

Reasons for the Decision

1. The appeal complies with the provisions referred to in Rule 101 EPC and is therefore admissible.

Invention

2. The application relates to an electronic design system for printed materials, such as business cards, incorporating a location map (see the international

publication of the application, paragraphs [0002] and [0005]). The motivation for the invention is described in paragraph [0005] as "a need for an improved electronic product customization system that allows a user of a Web-based product design system to easily incorporate a high resolution customized map into a product design intended for subsequent printing".

The design tool of the invention runs in a browser of a user computer system (UCS) connected to a server, where the product information is stored (paragraphs [0019] and [0020], Figure 1). The server stores template or layout information from a service provider, multiple versions of maps, image and other product information (paragraphs [0021] and [0022]).

The application describes the functionality of the design tool essentially in terms of its user interface depicted on Figures 2 to 9. At the beginning, the design tool provides the user with a selection of different types or categories of products. When a desired category is selected, thumbnails of pre-designed product templates provided by the service provider are shown for selection by the user (paragraphs [0025] and [0026], Figure 2). The system responds to the selection of a template by downloading layout and content information from the server to the UCS. The user is then presented with a customisable template image of the product design (see paragraph [0027]). In the example shown in the application, the user is able to customise both sides of a business card, where the back of the card may include a map (Figures 3 to 5). The user may choose whether to create a new map, change the cropping of the current map, or use a saved map, see paragraph [0036] and Figure 6.

The original claims were directed to the generation of the map for a particular electronic design product. In the description, the creation and customisation of a map on the back of the business card is described in paragraphs [0037] to [0046], and depicted in Figures 7 to 9. In order to generate a new map, the design tool obtains an address and a desired zoom level from the user (paragraph [0037], Figure 7). That information is sent together with container information, e.g. height and width information from the template, to the server, and used to obtain a local map (paragraph [0039]). The server stores a high-resolution version of the local map to be used for printing and sends a lower-resolution version to the UCS for display to the user (paragraph [0041]). The design tool presents a cropping window to the user, allowing the user to reposition and/or resize a crop box of the local map on the template (paragraphs [0042] and [0043], Figure 8).

Article 84 EPC

3. Claim 1 of the main request relates to a method for use in creating an electronic design of a two-sided product for printing, the design of the second side including a map in a map area. The steps recited by the claim can be divided into two groups, the first group generally describing the design of the two sides of the product, and the second group specifying in detail the generation of a map for a particular electronic design product taking into account information received from the client, including location, zoom level, and height to width ratio of the map area.

3.1 In its preliminary opinion, the Board expressed concerns that some steps of claim 1 might need an

indication of who or what performed them. In reply to the Board's communication, the appellant amended the claims, introducing a clarification in the statement of the invention of claim 1 that the method is performed by a server computer system in communication with a client computer system via a network. At the oral proceedings the Board concluded that it was clear from the claims how each of the steps was performed.

3.2 In its communication the Board noted that the feature "generating a lower resolution display map version of the user map" appeared to be broader than the disclosure and therefore not supported by the description. It seemed to correspond to the feature described e.g. in paragraphs [0007] and [0041], according to which the lower-resolution display map was generated at the server from the returned user map. It could however be argued that the claimed feature covered other possibilities, for example the direct independent generation of the display map from the map information. This preliminary objection no longer holds because the feature has been amended to "generating a lower resolution display map version of the user map from the obtained user map".

3.3 The same conclusions apply to independent claim 7, which is directed to a computerised system "for use in creating an electronic design of a two-sided product" with features corresponding to those of claim 1.

3.4 With regard to the dependent claims, no clarity problems were identified.

3.5 The Board is therefore satisfied that the claims fulfil the requirements of Article 84 EPC.

Article 123(2) EPC

4. Independent claim 1 recites a combination of features of claims 1, 9, 10 and 11 as originally filed and features taken from the description regarding the creation of an electronic design of a two-sided product and further detailing how the zoom and height to width ratio of the map area are used in the invention. In addition, minor amendments have been made to overcome clarity problems, or to avoid a broad interpretation of features of the claimed method.

4.1 The initial statement of the invention of original claim 1 has been amended to mention that the method is performed by a server in communication with a client and to further specify that the designed product is two-sided. Those features are based on e.g. paragraphs [0019] and [0020] and Figure 1 describing the server-client architecture, and paragraphs [0028] and [0033], and Figures 3 and 4, referring to the two sides of the product.

4.2 The first steps of claim 1, relating to the creation of an electronic design of a two-sided product by providing an image of each side of the product and providing tools allowing a user to provide at least text for the first side and to identify a location, can be directly and unambiguously derived from paragraphs [0028], [0029], [0033] to [0037] and Figures 3, 4 and 7.

4.3 The text "from the obtained user map" has been added to the text of the claim in the feature "generating a lower resolution display map version of the user map from the obtained user map" to overcome a clarity

objection (see point 3.2 above). A basis for this amendment can be found in paragraph [0041].

4.4 The feature specifying that only the display map is transmitted to the client computer system can be derived from the description in paragraphs [0039] and [0041]. Those paragraphs disclose that at the server first a high-resolution map with print quality, e.g. at 300 dots per inch (dpi), is obtained, then a lower-resolution display map, e.g. at 72 dpi, is generated from the obtained high-resolution map, and then this low-resolution display map is sent to the client computer system UCS. From these paragraphs the skilled reader understands that only the display map is transmitted to the client for display to the user.

4.5 The feature "associating the identified portion of the display map with the corresponding higher resolution user map information" of present claim 1 clarifies, in relation to the corresponding feature of original claim 1 which only referred to "map information", that the "map information" is the "higher resolution user map information". This feature is described in paragraph [0041]. The phrase "when the product is printed the map area on the second side of" has been added to adapt the original claim, which referred only to the design of a product including a map, to present claim 1 relating to the two-sided product design.

4.6 The last features of the claim relate to further receiving, in the information from the client, zoom level information and height to width information, or a container identifier, and using those parameters for obtaining the user map. Those features can be directly and unambiguously derived from original claims 9 to 11 and from paragraph [0039] of the description.

4.7 In its preliminary opinion, the Board questioned whether the combination of the features of original claim 1, which recited a generalisation of a method as described in paragraphs [0037] to [0046], directed to the generation of a map for a particular electronic design product, with features of the detailed description of the method for creating an electronic design of a two-sided product of paragraphs [0020] to [0046] was an intermediate generalisation infringing Article 123(2) EPC. At the oral proceedings the Board came to the conclusion that said combination of features did not constitute added subject-matter. The skilled person would recognise from the original application that the further detailed features of the creation of the two-sided product design did not relate to the general concept of the invention and, in particular, did not concern the generation of the map. The combination of features recited in claim 1 therefore does not add any technical teaching that the skilled person would not directly and unambiguously derive from the application as originally filed. In the Board's view, this is in line with decisions T 2185/10 of 21 October 2014 (see reasons 4.3) and T 962/98 of 15 January 2004 (see reasons 2.5).

4.8 The Board is therefore satisfied that claim 1, and corresponding independent system claim 7, fulfil the requirements of Article 123(2) EPC.

5. Dependent claims 2 and 5 correspond respectively to claims 2 and 6 as originally filed.

The subject-matter of claim 3 finds support in original claim 16, as well as in paragraphs [0043] to [0045].

Dependent claim 4 was drafted from original claim 5 by further reciting that the thumbnail version is stored for future use, as taught in paragraph [0041].

The feature of claim 6 according to which the location is based on address information supplied by the user during editing of the first side of the product is supported by paragraphs [0036] and [0037], especially the passage disclosing that "the three address fields will be pre-filled to contain the address information previously entered by the user during user editing of the front side of the business card".

The Board is therefore satisfied that dependent method claims 2 to 6, and corresponding system claims 8 to 12, fulfil the requirements of Article 123(2) EPC.

Inventive step

6. Document D1 discloses a system and method for creating a customised map for printing (paragraphs [0006], [0014] and [0016]). Since it is concerned with a computer-implemented method for creating an electronic design of a product - a map - for subsequent printing, document D1 is a suitable starting point for the assessment of inventive step of the claimed invention in the present case. It is also the closest prior art of all the documents cited in the whole proceedings.

6.1 The graphical user interface of the system of D1, running at a client, lets the user select an initial centre of the intended map area (paragraphs [0008], [0017] and [0034]), displays a proposed map and lets the user customise the map.

6.2 The system uses a database of electronic map information including high-resolution map data covering a relatively large geographical area, e.g. Great Britain, which is stored at a server (see paragraph [0026], web server 30 of Figure 1, corresponding to server 82 of Figure 4, including web site 86, database manager 88, and database 90). The centre of the intended map area may be given as a location identified within the relatively large geographical area (paragraph [0036], Figure 5A).

6.3 As explained in paragraph [0039], in response to the selection by the user of a location of the centre point of an intended map area, the system of document D1 determines a proposed map area and generates an overview representation of the proposed map with a border region or boundary zone, and a detailed representation of part of the overview representation. These representations are generated at the server (paragraph [0039], server 82, Figure 4) and are both displayed at the client. The proposed map and border region correspond to the feature of claim 1 described as "a relatively high resolution user map" obtained from the map information. The centre point of D1 corresponds to the identified location of present claim 1.

6.4 The overview and detailed representations are shown in Figure 6A and described in more detail in paragraphs [0040] to [0042]. The overview representation displays the proposed map (reference sign 133) and a boundary zone (reference sign 134) "in a small scale and with limited detail in order to enable" its "rapid generation", see paragraph [0041]. The overview representation therefore corresponds to a "lower resolution display map" "suitable for displaying at the

client computer system" within the meaning of the claim.

6.5 In the method of document D1, the user may change the centre and extent of the proposed map by mouse operations on the overview representation of the map (paragraphs [0043] to [0049]). After approving the proposed map, the user can customise the "presentation area" of the map product, that is select parameters for a different part of the layout of the printed customised map product. The parameters may include, for example, a title, a description, an image or logo, or the language for legends to be printed in the presentation portion (paragraphs [0050] to [0053] and [0059], Figure 8).

6.6 Upon completion of user customisation, the server sends a message to the print server (which may be the same server as the web server, according to paragraph [0063]) that "specifies the details needed to print the map" (paragraph [0056]). In the Board's view, this implies that beforehand the client computer system sends the description of the customised map, the details or parameters, to the server. The print server computes the data for generating the map using the parameters supplied by the server, and prints the map. According to paragraph [0057], the actual printing is done off-line and may take 10 to 20 minutes.

In the Board's opinion, the system of D1 calculates the area of the proposed map and border region which is associated with high-resolution map data in the database (paragraph [0026]), and retrieves the data it requires to generate the low-resolution overview map of that area and the high-resolution detailed view of a rectangular region of that area (paragraph [0039]).

However, document D1 does not explain exactly which data is retrieved for generating those views. Since the system of D1 stores data with different resolutions (paragraph [0026]), the skilled reader is led to assume that the overview representation can be obtained directly from low resolution map data and that only part of the associated high-resolution data, that corresponding to the rectangular region, is retrieved for generating the detailed view (paragraph [0039]). Therefore, document D1 does not disclose creating a high-resolution map of the whole proposed map area, especially not one for printing at a selected height to width ratio and zoom level, at the stage of the method in which a user selects a location and views the map. Consequently, it does not disclose generating the low-resolution overview representation (corresponding to the display map of the claim) from a high-resolution map with print quality either.

6.7 With respect to previous requests, the appellant had argued that document D1 did not disclose the step of "associating the identified portion of the display map with corresponding higher resolution map information" such that the map area in the product "is printed using the higher resolution map information".

In its communication the Board tended to disagree on that point. The overview representation of D1 had a low resolution and was used for identifying the area of the customised map. According to paragraph [0042], part of it was shown "in a larger scale and with more detail" in the detailed representation, which was intended to be shown with full detail "so that the user is able to assess the full content of at least a part of the proposed map". In the Board's view, that passage, or e.g. claim 7 of document D1, disclosed that the map

would not be printed in the resolution of the overview representation, but in a higher resolution, which could be the one used for the detailed representation to let the user see the end result for part of the map. This implied that the overview representation, or display map, was associated "with corresponding higher resolution map information" to be used for printing. The Board further noted that the claim, as it was drafted then, did not recite that the higher-resolution map information used for printing was obtained from the user map.

In reaction to the Board's preliminary opinion, the appellant amended claim 1 to clarify that the identified portion of the display map is associated "with the corresponding higher resolution user map information such that when the product is printed the map area ... will be printed using the higher resolution user map information", and to further specify that the user map is obtained at a height to width ratio corresponding to that of the map area and at the selected zoom level. The Board recognises, with regard to present claim 1, that document D1 does not disclose these additional features which further condition the step of associating the identified portion of the display map with the corresponding higher-resolution user map information.

7. The subject-matter of claim 1 therefore differs from the method of document D1 essentially in that:

(a) the product is to be printed in a two-sided way, with text on the first side and a map on the second side, and the method includes steps for providing an image of each of the first and second sides for displaying and for customisation by the user, and

for providing a tool allowing the user to supply text for the first side,

(b) the information received from the client computer system includes zoom-level information as well as height and width information of the map area or a container identifier allowing the server computer system to determine the height to width ratio of the map area,

(c) a relatively high-resolution user map is obtained
- in response to the identification of the location,
- at a height to width ratio corresponding to that of the map area and at the selected zoom level, and

(d) the display map is generated from the obtained user map,

(e) the higher-resolution map which is associated with the identified portion of the display map for printing is the user map having the properties listed under (c) above,

(f) only the low-resolution display map is transmitted to the client computer system.

8. The Board acknowledges, in line with arguments by the appellant, that the distinguishing features of the claimed invention allow for a representation of the map at the client which more closely reflects the final print result. In particular, by obtaining in advance a user map with the specific height to width ratio and zoom level required for printing (features (b) and (c)), generating the display map to be sent to the client from that user map (features (d) and (f)), and using exactly that user map for printing (feature (e)), the display map more closely resembles the printed map and more accurately reflects the final print quality.

In the Board's opinion, displaying an image of the print product which more closely reflects the final print quality of the product in the present case goes beyond mere presentation of information since it provides information regarding measurable properties of the final print product, e.g. height to width ratio and level of detail, and assists the user in the technical task of preparing and printing the product, e.g. a map, having specific characteristics with regard to those properties (see e.g. T 643/00 of 16 October 2003, reasons 16 and 17). Such an effect has therefore a technical character.

Features (b) to (e) therefore solve the problem over the method of document D1 of providing a display image which more closely reflects the final print quality of the product.

9. None of the available prior-art documents discloses or suggests a solution to this problem.

As explained in the Board's preliminary opinion, it is standard practice in image processing and print management applications with client-server architectures, in particular web-based tools, to send only a lower-level resolution image, also known as proxy image, to the client. The high-resolution image is kept at the server and used for printing. That approach is disclosed in document D2, paragraph [0003], document D3, page 2, line 42 to page 3, line 21, and document D5, page 9. It is also to some extent adopted in the method of D1, in which the lower-resolution map is displayed in the overview representation at the client, see for instance paragraphs [0009], [0041] ("enable the rapid generation of the overview

representation") and [0042] ("the overall map can be generated at high speed").

The feature of sending only a lower-resolution image to the client system is well known and disclosed in those documents in the context of improving the efficiency of the system by reducing the amount of data sent to the client system. However, none of those documents discloses or suggests first obtaining the high-resolution image already taking into account specific parameters of the final printed map, such as height to width ratio and zoom level, and only afterwards generating the low-resolution image from the high-resolution image. Moreover, that state of the art does not disclose creating at the server a lower-resolution image with improved previewing characteristics at the client.

The Board therefore concludes that features (b) to (f) are inventive.

In view of that, a final opinion is not required on the question of whether distinguishing features (a) also contribute to the inventive step.

10. From the above reasoning, it follows that the subject-matter of claim 1, and that of equivalent system claim 7, involves an inventive step (Articles 52(1) and 56 EPC) over the available prior art. The same conclusion applies to claims 2 to 6 and 8 to 12 by virtue of their dependence upon one of independent claims 1 and 7.

Concluding remarks

11. The appeal is to be allowed because the claims comply with the provisions of the EPC. However, as the claims have undergone substantial amendments, the description and drawings may need to be adapted to the claimed subject-matter before a patent can be granted.

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 with the order to grant a patent with the following claims and a description to be adapted thereto:
   claims 1 to 12 of the main request filed during the oral proceedings of 2 August 2016.

The Registrar: The Chairman:

I. Aperribay M. Rognoni

Decision electronically authenticated