This document includes some recent decisions of the EPO in 2016 with regards to software related inventions and shows relevant <u>extracts</u> from the respective decisions.

T 1789/11 (Clipboard formats I/MICROSOFT) of 8.12.2016

European Case Law Identifier: ECLI:EP:BA:2016:T178911.20161208

Data transfer with expanded clipboard formats

Sufficiency of disclosure - (yes)

Application number: 95119547.8
IPC class: G06F 9/46
Applicant name: MICROSOFT CORPORATION
Opponent name: Hössle Patentanwälte Partnerschaft

Cited decisions: G 0001/86; T 0152/85; T 0424/03

Board: 3.5.06

http://www.epo.org/law-practice/case-law-appeals/recent/t111789eu1.html

5.4 The finding on sufficiency in the appealed decision

According to the <u>reasons for the decision</u>, the patent did not sufficiently disclose the file contents clipboard format and the steps for converting the selected data into said file contents clipboard format, Article 100(b) EPC 1973; see reasons, points 33 to 41. Thus the patent did not describe at least one way of carrying out the invention of claim 1. There was also <u>no restriction on the complexity of the data to be transferred and thus no restriction on the complexity of the conversion operation over the whole range of the claim</u>. Hence the conversion operation covered cases which would require inventive skill, such as converting data from a CAD application for use in an object-oriented data base.

5.5 The grounds of appeal

According to the appellant, the "file contents clipboard format" and the "file group descriptor clipboard format" are both completely defined in claim 1 itself. Claim 1 sets out the "file contents clipboard format" being usable to hold the selected data, and the skilled person would be able to implement this over the whole range claimed. Regarding the complexity of the conversion operation, the appellant pointed out that the example used in the decision of transferring data from a CAD application to an object-oriented data base application is not mentioned in the patent.

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5.6 The board's assessment of sufficiency of disclosure

5.6.1 The **board disagrees with the finding in the appealed decision** that the skilled person would be unable to implement, using common technical knowledge, the file contents clipboard format and the steps for converting the selected data into that clipboard format. As explained above, the board construes claim 1 more generally than was set out in the appealed decision. In particular, it finds that claim 1 sets out functional definitions of the file contents clipboard format and the conversion of selected data into that format. The file contents clipboard format and file group descriptor clipboard format are not limited by the data format required by any particular target application, for instance the object-oriented data base referred to in the appealed decision. According to the functional definitions, the file contents clipboard format merely has to be suitable for holding the selected data and the conversion step merely involves converting the selected data into that format. **These steps do not pose a specific problem which the skilled person would be unable to solve without undue burden across the full breadth of the claim**.

5.6.2 Hence the board agrees with the finding on sufficiency in the first T-decision (see points 4 to 4.3) and concludes that the patent discloses the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art, Article 100(b) EPC 1973.

T 0661/11 (Uniform directory-service access/MICROSOFT TECHNOLOGY LICENSING) of 15.11.2016

European Case Law Identifier: ECLI:EP:BA:2016:T066111.20161115

Method and system for uniformly accessing multiple directory services

Inventive step - main request (yes)

Application number: 04014741.5
IPC class: G06F 17/30
Applicant name: Microsoft Technology Licensing, LLC

Board: 3.5.07

http://www.epo.org/law-practice/case-law-appeals/recent/t110661eu1.html

2. The invention

2.1 The background section of the application explains that various vendors provide directory service systems. Directory services provide information repositories and are accessible by clients over a network. The information stored is generally arranged as a hierarchy of

"objects", each object having a unique identifier within this hierarchy. If in this hierarchy a first object is the child of a second object, the second object is said to "contain" the first object.

Information is associated with an object in the form of a set of property values. The properties that a particular object has are determined by the "object class" to which the object belongs. In the example object hierarchy shown in Figure 1, object 101 belongs to the "Company" object class. Objects in this class have properties "Name" and "Address". The value of the property "Name" of object 101 is "MS". Object 102 belongs to the object class "Division". It has a property "Name" with value "System".

The unique identifier of an object typically corresponds to the path from the root object of the hierarchy to the object itself. The identifier of object 102, which is connected to the root object via object 101 (i.e. the root object contains object 101, and object 101 contains object 102), is "Company=MS\Division=System". The conceptual space of all such identifiers is referred to as the "namespace" of the directory service.

2.2 To allow clients (i.e. client applications) to access its directory service system, each vendor designs and implements its own application programming interface (API). Although API sets of different directory services generally provide similar functionality, they are still different. A client that needs to use different directory services is therefore required to implement code for each vendor-specific API set.

2.3 The **invention addresses this problem by proposing a directory service system that provides a uniform interface for accessing a variety of directory services**.

2.4 This uniform interface provides clients with name resolving and binding functionality for locating a directory object on the basis of its unique identifier and binding to an in-memory object representing the located object.

2.5 To allow clients to learn about the properties an object may have as defined by its object class, the uniform interface of the directory service system further provides access to "schema objects". Each schema object corresponds to an object class and defines the properties of the object class. The schema objects corresponding to the object classes of a particular directory service are all placed in a "schema container object" for the directory service. This schema container object is assigned a pre-defined name within the namespace of the directory service. Thus, clients are provided with a uniform way of inspecting the object classes of a particular directory service by locating and binding to the schema container object of the directory service and enumerating the (schema) objects contained therein.

2.6 The uniform interface also allows clients to define new object classes for a particular directory service by adding schema objects to the schema container for the directory service.

4. Main request - inventive step

4.1 In its decision, the Examining Division considered document D1 in combination with document D4 to represent the closest prior art for the subject-matter of claim 1.

Document D1 is a paper presenting the "X/Open Federated Naming" (XFN) specification, which defines uniform naming interfaces for accessing a variety of naming systems (see abstract). The document explains on page 28, left-hand column, second to fourth paragraphs, that a variety of heterogeneous naming systems exist. Each of these naming systems has its own API, which forces application programmers to write custom software for each naming system that their applications use. To address this problem, the XFN specification was developed, which has become part of the "X/Open Common Application Environment (CAE)" (page 28, right-hand column, second full paragraph). The XFN API is layered over the APIs of specific naming services and thus hides the details of the underlying naming systems. This allows applications using the XFN API to access a variety of naming systems without modification (page 29, right-hand column, third paragraph).

Document D4 is an "X/Open CAE Specification" titled "Federated Naming: The XFN Specification".

4.3 …, document D1 discloses a system providing uniform access to a plurality of heterogeneous naming systems, among which are directory services such as the X.500 directory service and the DCE Cell Directory Service (page 28, left-hand column, second paragraph). By means of the "XFN base context interface", clients can inter alia look up a name to obtain a reference, bind to the reference and manipulate attributes of objects (page 29, right-hand column, fourth paragraph, to page 30, left-hand column, first full paragraph). The document therefore represents a suitable starting point for assessing inventive step.

As the Examining Division's analysis confirms, document **D1 does not disclose - not even when read together with document D4 - the presence of a "container object" having a pre-assigned name within the namespace of each directory service, the container object containing a schema object for each object class of the directory service**.

4.4 As explained in the paragraph bridging pages 11 and 12 of the description of the application, these distinguishing features allow a client to determine the definition of object classes at run time and to define additional object classes in a uniform manner for all directory services.

The **objective technical problem** solved by these features may thus be seen as that of **allowing a client to discover and manipulate object classes of directory services at run time**.

(None of the other prior art documents could close this gap left by D1 and D4.)

4.9 Hence, the subject-matter of claim 1 of the main request involves an inventive step within the meaning of Articles 52(1) and 56 EPC.

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T 2439/11 (Web-page classification/FACILITYLIVE OPCO) of 11.11.2016

European Case Law Identifier: ECLI:EP:BA:2016:T243911.20161111

Method for classifying web pages and organising corresponding contents

Inventive step - (no)

Applicant name: FacilityLive Opco S.r.l.
Application number: 07856906.8
IPC class: G06F 17/30
Cited decisions: T 1358/09

Board: 3.5.07

http://www.epo.org/law-practice/case-law-appeals/recent/t112439eu1.html

…, document D3 discloses a method for classifying a collection of web pages and organising the corresponding contents. This method comprises a step of defining (handcrafted) terms and a step of recording internet addresses of web pages associated with the terms in the sense of assigning web pages to terms. The subject-matter of claim 1 differs from this prior-art method in the following additional features:

(a) documents are classified on the basis of "lemmas" rather than terms (cf. point 2.4 above);

(b) a "predetermined" number of internet addresses is recorded;

(c) recording comprises executing a plurality of automatic recording processes;

(d) pertinence values are assigned "proportional to the recordings" of the internet addresses;

(e) (only) the internet addresses with pertinence value greater than a predetermined threshold value are determined;

(f) in a "reduction step", web pages coming from an identical domain for the same lemma (as other web pages in the selection) are eliminated;

(g) the remaining web pages/internet addresses are manually "validated"; and

(h) the reduction step (f) is executed by an identification script.

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These features largely correspond to the distinguishing features which are identified in the decision under appeal with respect to document D2 and on which the appellant based its arguments in support of inventive step in the statement of grounds of appeal.

4.4 According to the appellant, the distinguishing features identified in the decision had a synergistic effect consisting in classifying and organising web pages more quickly compared to prior-art methods.

Given that the claimed method in any case returns different results than the method of document D3 or any other prior-art method, the fact that the claimed method runs faster than known methods - if that is indeed the case - is in itself not very meaningful. In its communication the Board therefore suggested that the appellant's argument was to be understood as saying that the distinguishing features interact to efficiently classify web pages with good results, i.e. that it achieved a good compromise between speed of execution and quality of search results. Indeed, the description presents the problem to be solved as that of obtaining pertinent and reliable results which are free of information noise (cf. point 2.3 above).

4.5 In the Board's view, however, **such an effect does not qualify as a technical effect**. In the context of the present application, the "quality" of a particular classification of web pages **is a cognitive matter and, therefore, not a technical issue**. The question whether or not a web page about the Leonardo da Vinci airport is to be classified under the lemma "Leonardo da Vinci", to take an example from the description of the application, is **answered on the basis of cognitive considerations**. See in this respect also decision T 1358/09 of 21 November 2014, reasons 5.2.

4.6 **Nevertheless, it still remains to be determined whether an inventive step is present in technical considerations underlying the individual steps or combinations of steps or in their technical implementation**.

4.8 Feature (b) arguably reflects the technical consideration that limiting the number of internet addresses to be recorded limits resource usage, but that consideration is obvious and trivial to implement.

4.9 Features (a), (d), (e), (f) and (g) reflect only non-technical considerations on how to improve the quality of the resulting classification. The technical implementation of features (a), (d), (e) and (f) on a computer is straightforward and not further described in the application. Implementing feature (f) in accordance with feature (h) as part of an "identification script" reflects an obvious implementation choice not leading to a surprising technical effect.

The manual validation step of feature (g) is presumably to be facilitated by a user interface, but the implementation of such an interface must likewise be considered to fall within the abilities of the skilled person. The description of the present application again gives no implementation details.

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4.10 Thus, although the particular claimed combination of features is novel, since no inventive step can be seen in technical considerations underlying the individual steps or combinations of steps or in their technical implementation, the subject-matter of claim 1 lacks inventive step (Articles 52(1) and 56 EPC).

T 2604/11 (POWER MANAGEMENT / HP) of 7.12.2016
European Case Law Identifier: ECLI:EP:BA:2016:T260411.20161207
POWER MANAGEMENT SYSTEM AND METHOD

Inventive step - after amendment (yes)

Application number: 07749806.1
IPC class: G06F 1/32, G06F 1/26
Applicant name: HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.

Board: 3.5.06

http://www.epo.org/law-practice/case-law-appeals/pdf/t112604eu1.pdf

Claim 1 reads as follows:

"A power management system (10), comprising:

a power management module (30) configured to receive a requested duration of time (80) for powering an electronic device (12) by a battery (16), the power management module (30) configured to control use of power-consuming applications (40) that are executable on the electronic device (12) based on a prioritization (62) of the power-consuming applications (40) to enable powering of the electronic device (12) by the battery (16) for at least the requested duration of time (80),

wherein the power management module (39) is configured to reduce the power consumption of the electronic device (12) by automatically closing a particular power-consuming application (40),

wherein the power management module (30) is configured to prevent opening and/or otherwise initiating a particular power-consuming application (40),

wherein the prioritization (62) is dynamic and comprises at least two different priority levels of the power-consuming applications (40),

wherein one or more of the power-consuming applications (40) has a variable priority, and

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wherein, in response to opening and/or otherwise initiating a particular power consuming application (40) having a variable priority, the priority level of the particular power consuming application is changed to a higher level."

2. Inventive step; Article 56 EPC 1973

2.1 In its reasons, the appealed decision starts from D1 as the closest prior art document. The board agrees that D1 indeed represents the closest prior art and notes that the appellant has not challenged this finding. As set out in the appealed decision (Reasons 1.1), D1 discloses a power management system, comprising:

a power management module (see abstract: "the operation condition changing circuit controls power consumption") configured to receive a requested duration (see abstract: "desired operating time") for powering an electronic device by a battery (see abstract: "battery for supplying power to the central processing unit and the input/output units"), the power management module configured to control use of power-consuming elements of the electronic device (see abstract: "controls power consumption in the input/output units") based on a prioritization of the power - consuming elements (see column 9, lines 22-33 and figure 8: "preferential order table ... ranks '1' to '5' of the preferential order are assigned to each of the items") to enable powering of the electronic device by the battery for at least the requested duration of time (see abstract: "thus ensuring the desired operating time of the information processing apparatus to be met"),

wherein the prioritization comprises at least two different priority levels of the power-consuming elements (see column 9, lines 22-33 and figure 8: "ranks '1' to '5' of the preferential order are assigned to each of the items").

2.2 The <u>problem to be solved</u> by the present application is to <u>prevent the situation that a power-consuming application is automatically shut down to save battery power after it has been opened, due to its lower priority</u>.

2.3 In order to solve this problem, the system of claim 1 foresees that **the priority of the application is increased when the application is opened or otherwise initiated**.

2.4 This way of proceeding is **not disclosed or rendered obvious** by any of the documents cited in the search report.

2.4.1 D1 mentions a "preferential order table" (see column 2, lines 4-13), i.e. it also discloses a priority system. Said table is dynamically settable by the user. However, the priorities do not change in response to opening/initiating an application.

2.4.2 In D3 (see figure 9 and §§ [0102]-[0104]), the user can specify the priority of each power-consuming device at a certain time. There is no provision for automatically increasing the priority of a device when it is started.

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2.4.3 In D4, the priority of the modules is defined e.g. by the entries in column 2 of Table 3. The priority of a module changes when power to that module is suspended to the benefit of another module with the same priority in column 2.

Hence D4 firstly discloses a system in which the priority of certain modules is lowered. Secondly, the priority change is not triggered by opening/initiating a particular application but by determining during a periodic check that the available power is less than the total power required by all modules; see § [0009].

2.4.4 D6 discloses a system in which priorities are set by the user, after he or she has received a recommendation from the power-consuming device (see § [0031]). An automatic change of the power settings is also mentioned (§ [0031], second and last sentence). There is no provision for automatically increasing the priority of device functions when they are started.

2.5 The board therefore concludes that the subject-matter of claim 1 is inventive; Article 56 EPC 1973.

T 2434/10 (Custom product design/CIMPRESS SCHWEIZ) of 2.8.2016

European Case Law Identifier: ECLI:EP:BA:2016:T243410.20160802

System and method for custom product design

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

Application number: 04812723.7
IPC class: G06F 17/21
Applicant name: Cimpress Schweiz GmbH
Cited decisions: T 0962/98, T 0643/00, T 2185/10

Board: 3.5.07

http://www.epo.org/law-practice/case-law-appeals/pdf/t102434eu1.pdf

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".

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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 <u>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</u>, see paragraph [0036] and Figure 6.

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.

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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"

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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 <u>zoom-level information as well as height and width information of the map area</u> or a container identifier allowing the server computer system to <u>determine the height to width ratio of the map area</u>,

(c) a <u>relatively high-resolution user map</u> 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 <u>display map is generated</u> 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) <u>only the low-resolution display map is transmitted to the client</u> computer system.

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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**.

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T 2401/13 (Pop-up window/PHILIPS) of 13.10.2016
European Case Law Identifier: ECLI:EP:BA:2016:T240113.20161013
Clinician decision support system

Inventive step - (no): obvious implementation of an administrative rule

Application number: 07826672.3
IPC class: G06F 19/00
Applicant name: Philips Intellectual Property & Standards GmbH
Cited decisions: T 0641/00

Board: 3.5.05

http://www.epo.org/law-practice/case-law-appeals/pdf/t132401eu1.pdf

Claim 1 of the auxiliary request reads as follows:

"Bedside patient monitor (101) comprising

a clinician support system (1);

a first interface (105) for manual patient-related input; and

a second interface (107) for continuous input of sensor (109) signals;

wherein the clinician support system (1) comprises at least one of the following modules[sic]

a disease-specified decision module (11),

a disease-specific treatment module (13) or

a disease-specific observation module (15); and

wherein the clinician support system (1) further comprises an information delivery tool (27) to deliver requested information requested by at least one of the

disease-specific modules (11, 13, 15), wherein the information delivery tool (27) is configured to transmit a request for the requested information to a connected remote source (119) in case the requested information is not delivered by the second interface and to generate a pop-up window to trigger manual input through the first interface (105) if the requested information is not available through the second interface (107) or is not delivered by the connected remote source (119) in response to the request transmitted to the connected remote source by the information delivery tool (27)."

1.1 Novelty and inventive step

1.1.1 The board concurs with the examining division that document D3 may be regarded as a suitable starting point for the assessment of novelty and inventive step, and finds that it discloses the following limiting features of present claim 1 (based on the labelling of the board):

A) Bedside patient monitor ("monitoring system at each ICU bedside"; see paragraph [0214] in conjunction with Figs. 9 and 12) comprising

B) a first interface for manual patient-related input (see e.g. paragraph [0213], second and third sentences: "A local work station 280 ... which allows data to be input ... provides for ... patient orders ...");

C) a second interface ("vital sign monitoring system 450"; see Fig. 12) for continuous input of sensor signals (see e.g. paragraph [0214], second sentence: "The monitoring system at each ICU bedside comprises a monitoring system for monitoring the vital signs for the patient"; paragraph [0225], second sentence: "The smart alarm system constantly monitors physiologic data (collected once per minute from the bedside monitors) ...");

D) a clinician support system ("workstation 280"; see e.g. paragraph [0045] in conjunction with Fig. 10) comprising

D1) at least one disease-specific module (e.g.

"resident database 524"; "Apache II score assignment manager 538"; see e.g. paragraph [0219] in conjunction with Fig. 15);

D2) an information delivery tool ("patient information front end 228") to deliver requested information requested by at least one of the disease-specific modules (see e.g. paragraph [0203], last sentence: "... each ICU has a patient information front end 228, which receives information concerning ... characteristics of the patient" in conjunction with Figs. 9 and 15).

1.1.2 Distinguishing features

…

Hence, the board concludes that the subject-matter of claim 1 differs from the disclosure of D3 in that the information delivery tool is further configured to

(a) transmit a request for the requested information to a connected remote source in case the requested information is not delivered by the second interface;

(b) generate a pop-up window to trigger manual input through the first interface if the requested information is not available through the second interface or is not delivered by the connected remote source in response to the request transmitted to the connected remote source.

Consequently, the subject-matter of present claim 1 is found to be novel over D3 (Article 54 EPC 1973). The board also notes that features (a) and (b) are supported, for example, by page 2, line 25 to page 3, line 11 of the application as originally filed, and thus comply with Article 123(2) EPC.

1.1.3 Objective technical problem

The <u>appellant</u> submitted in the written and oral proceedings that distinguishing features (a) and (b) had the <u>technical effect that - after the available "electronic sources" were scanned one after the other - the requested information was eventually entered by the user, so that the manual input was chosen as a "backup source"</u>.

The board, however, is not convinced that such technical effect matches with the wording of present claim 1. Rather, feature (b) solely indicates that any manual input whatsoever is triggered by the pop-up window generated. It does not indicate at all that the requested information is necessarily to be manually entered by the user. Thus, **the alleged technical effect cannot be derived from claim 1.** At best, features (a) and (b) could be taken to specify that the user is, firstly, alerted by way of the pop-up window to the fact that requested information is not available through the electronic sources (i.e. via the second interface receiving sensor signals or a connected remote source), and is, secondly, invited to provide some manual input (e.g. his/her credentials, password, user settings, further instructions, etc.) in that particular case.

As a consequence, the appellant's assertion that the "decision support algorithm" (according to paragraphs [0234] to [238]) and the "Apache II score assignment manager" (according to paragraph [0219]) of D3 did not require the input of patient-related data must also fail. Moreover, **a formulation of the objective problem to be solved such as "how to achieve more flexibility in using existing information sources to provide the requested information to a disease-specific module", as was put forward by the appellant at the oral proceedings before the board, cannot be accepted since it would not be credibly solved by present claim 1 based on distinguishing features (a) and (b).**

Furthermore, the appellant conceded at the oral proceedings before the board that features (a) and (b) define a certain hierarchy of information retrieval but submitted that this hierarchy was not decisive for the invention. Rather, according to the appellant, the order of scanning the information sources available was inventive over D3.

The board, however, holds that **the kind of hierarchical scanning of data according to features (a) and (b) is rather the mere result of an administrative rule**, which may be worded, for example, as follows:

"<u>In the first place, rely (i) on medical data retrieved from patient sensors, then (ii) on medical data retrieved from a remote server, and, as a last resort, (iii) on any data input by a user.</u>"

Such a rule would most likely be established by an administrator, such as the head of the clinic, rather than by an engineer, and is therefore to be regarded as a non-technical constraint to be met within the meaning of T 641/00 (Headnote 2). Consequently, the board

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finds that the **objective problem may legitimately be formulated as "how to adapt the implementation of the medical system of D3 in order to enforce the above administrative rule**".

1.1.4 Obviousness of claim 1

As regards feature (a), the skilled person would be aware from his common general knowledge that, to obtain the information required from electronic sources like sensors and remote servers, electronic messages such as "requests" have to be sent to those sources, which then may trigger some electronic messages in reply thereto (i.e. "responses") containing the requested data if available.

Concerning feature (b), it is apparent to the board that D3 teaches explicitly that manual input of medical data by the user (intensivist) is enabled in the system of D3 (see e.g. paragraphs [0218] and [0234] to [0238], in conjunction with Figs. 21A and 21B). It also states that medical data such as "positive blood cultures" are to be provided to the corresponding user interface to the extent that they are available (see e.g. paragraph [0224]). As to the sequence of operation, D3 further emphasises that its teaching can be implemented "all at once or in stages" (see paragraph [0021], first sentence).

Thus, the board holds that **the skilled person in the field of medical data networks**, starting out from the teaching of D3 and confronted with the above-identified objective problem, **would readily take up those hints and implement the underlying administrative rule, without exercising inventive skills.** The board also notes in passing that, even if feature (b) specified that the kind of information entered manually was indeed the requested patient-related data, the skilled person would come up with a solution according to claim 1 in order to ensure that medically sensitive patient data can still be retrieved in the event that no automatic detection is possible for whatever reason.

1.2 In conclusion, the auxiliary request is not allowable under Article 56 EPC 1973.

T 0745/11 (Erstellen eines Lageplans/S-Y SYSTEMS) of 28.10.2016

European Case Law Identifier: ECLI:EP:BA:2016:T074511.20161028

Verfahren und Vorrichtung zum Erstellen eines Lageplans für einen Leitungssatz, insbesondere für ein Kraftfahrzeug

Patentansprüche - Klarheit
Patentansprüche - Hauptantrag (ja)

Aktenzeichen: T 0745/11
Anmeldenummer: 04740816.6
IPC-Klasse: G06F 17/50
Name des Anmelders: S-Y Systems Technologies Europe GmbH

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Angeführte Entscheidungen: T 0630/93

Kammer: 3.5.07

http://www.epo.org/law-practice/case-law-appeals/pdf/t110745du1.pdf

Die Erfindung

2. Die beanspruchte Erfindung betrifft eine Vorrichtung und ein Verfahren zum Erstellen eines Lageplans für einen Leitungssatz beispielsweise für den Kraftfahrzeugbau. In diesem Bereich der Technik ist das Problem bekannt, Komponenten an eine große Zahl von Ausstattungsvarianten anpassen zu müssen.

Die Aufgabe der Erfindung besteht darin, eine Möglichkeit zum Erstellen eines Lageplans für einen Leitungssatz bereitzustellen, mit dem eine einfache und schnelle Anpassung an verschiedene Ausführungsformen erreicht wird.

Die Erfindung löst diese Aufgabe durch einen rechnergestützten funktionalen Entwurf des Leitungssatzes, bei dem für ausgewählte Anschlusselemente des Leitungssatzes eine technische Funktion festgelegt wird. Regelunterstützt wird für eine technische Funktion die technische Realisierung der ausgewählten Anschlusselemente festgelegt und bei der Erstellung des Lageplans berücksichtigt.

Hauptantrag - Klarheit

3. Bei dieser Beschwerde geht es ausschließlich um das Erfordernis der Deutlichkeit nach Artikel 84 EPÜ und insbesondere darum, ob die Zurückweisung der Anmeldung wegen der Verwendung des Ausdrucks "Funktion" in Anspruch 1 gerechtfertigt war.

3.1 In der Entscheidung wird nicht ausgeführt, welche konkreten Auslegungsprobleme oder Abgrenzungsprobleme (zum Beispiel Unsicherheit bei der Abgrenzung gegenüber einem Dokument, das zum Stand der Technik gehört) sich für das beanspruchte Verfahren aufgrund der behaupteten Unklarheit des Begriffs "Funktion" ergeben.

3.2 Die Entscheidung legt auch nicht näher dar, wie eine deutlichere Angabe des Verfahrens hätte erfolgen können. Hierzu wird durch die Prüfungsabteilung ohne weitere Begründung lediglich festgestellt, dass die von der Anmelderin im seinerzeitigen Hauptantrag vorgenommene Einschränkung, dass die technische Funktion "eine elektrische, eine mechanische oder eine optische Funktion" darstellt, nicht dazu beitragen könne, den Funktionsbegriff selbst klarzustellen.

Diese Argumentation deutet darauf hin, dass die Entscheidung den Kontext des für unklar erachteten Begriffs nicht ausreichend berücksichtigt.

3.3 Die Richtlinien für die Prüfung, November 2015, führen unter F-IV, 4.2 zur Auslegung von Ansprüchen folgendes aus:

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"Der Wortlaut eines jeden Patentanspruchs ist so zu verstehen, dass sich für die einzelnen Wörter die Bedeutung und die Reichweite ergeben, die sie auf dem betreffenden Gebiet normalerweise haben, es sei denn, die Beschreibung verleiht den Wörtern in bestimmten Fällen durch ausdrückliche Definition oder auf andere Weise eine besondere Bedeutung. [...] Der Patentanspruch muss auch so gelesen und verstanden werden, dass er technisch einen Sinn ergibt."

Nach der **ständigen Rechtsprechung der Beschwerdekammern ist die Breite eines Anspruchs jedenfalls nicht mit mangelnder Klarheit gleichzusetzen, ein breiter Anspruch ist somit nicht per se undeutlich** (siehe Rechtsprechung der Beschwerdekammern des Europäischen Patentamts, II.A.3.3).

Ob ein an sich abstrakter Begriff für eine Angabe des Gegenstands, für den Schutz begehrt wird, deutlich ist, kann daher nur im konkreten Einzelfall unter Berücksichtigung aller Begleitumstände, insbesondere des gesamten Kontexts sowie der im betreffenden Fachgebiet üblichen Bedeutung und Reichweite des Begriffs, beurteilt werden.

Im vorliegenden Fall ist der Begriff "Funktion" daher im Kontext des Anspruchs 1 des vorliegenden Hauptantrags unter angemessener Berücksichtigung der für den Fachmann auf dem Gebiet des rechnergestützten Entwurfs üblichen Bedeutung auszulegen.

3.4 In Anspruch 1 des Hauptantrags kommt dieser Begriff nur im Zusammenhang mit dem Wort "technisch", also als "technische Funktion" vor. Weiterhin ist festgelegt, dass es sich um eine technische Funktion eines Leitungssatzes beziehungsweise einer seiner Komponenten handelt.

3.5 Es ist also zu entscheiden, ob der Ausdruck "technische Funktion" im Kontext des Anspruchs 1 für den fachkundigen Leser ausreichend klar ist, um das beanspruchte Verfahren deutlich anzugeben.

Die Kammer geht mit der Beschwerdeführerin davon aus, dass der Fachmann für den rechnergestützten Entwurf von Leitungssätzen weiß, was unter diesem Begriff zu verstehen ist: eine technische Funktion des Leitungssatzes ergibt sich aus der Funktion der Komponenten dieses Leitungssatzes.

So hat etwa eine Leitung als ein Beispiel einer Komponente die Funktionalität, Strom zur Verfügung zu stellen, eine andere Leitung als weiteres Beispiel einer Komponente die Funktionalität, eine Kommunikation von Daten zu ermöglichen, usw. Eine technische Funktion des Leitungssatzes (beispielsweise Stromversorgung, Datenübertragung) ergibt sich aus der technischen Funktionalität seiner Komponenten. Natürlich gilt dies für den Entwurf dann auch umgekehrt: Die technische Funktion eines Leitungssatzes bestimmt, welche Funktion die Komponenten des Leitungssatzes erfüllen müssen und somit welche technische Ausprägungen der Komponenten zur Implementierung dieser Funktion festlegbar sind.

3.6 Im Anspruch 1 geht es also offensichtlich um einen rechnergestützten funktionalen Entwurf eines Leitungssatzes. Dabei ist es das Ziel, eine Funktion des zu entwerfenden Leitungssatzes über die Funktionen seiner einzelnen Komponenten zu definieren, um dann

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mit Hilfe des rechnergestützten Entwurfssystems auf Basis der eingegebenen Funktionen die technische Ausführung der einzelnen Komponenten festzulegen.

In der Beschreibung wird dieser funktionale Entwurf mit Hilfe des anhand der Figuren 3A bis 3D beschriebenen Ausführungsbeispiels konkret erläutert (siehe Beschreibung, Seite 7, Zeile 1 bis Seite 15, Zeile 10).

"[...] Vor der Eingabe über die Eingabeeinheit 3 zeigt das Anzeigemittel 4 einen ersten Leitungsweg 61 mit einem ersten und einem zweiten Anschlusspunkt 71, 72 an, wie in Figur 3A dargestellt. Nun wird von einer Bedienperson über eine entsprechende Eingabe ein erstes Anschlusselement 81 dem ersten Anschlusspunkt 71 zugeordnet. Das erste Anschlusselement 81 wird beispielsweise aus einer Anschlusselement-Datenbank von der Bedienperson ausgewählt, die im Speicher 2 abgelegt ist. [...]

Zudem wird dem ersten Anschlusselement 81 von der Bedienperson eine erste Funktion 91 zugeordnet. Die erste Funktion 91 wird vorzugsweise aus einer Funktionsbibliothek entnommen, die im Speicher 2 abgelegt ist. In der Funktionsbibliothek sind eine Vielzahl von Funktionen abgelegt, die für einen Leitungssatz erforderlich sind. Dem zweiten Anschlusspunkt 72 wird ein zweites Anschlusselement 82 zugeordnet. Zudem wird dem zweiten Anschlusselement 82 eine zweite Funktion 92 zugeordnet. Die erste und zweite Funktion 91, 92 stellen elektrische, mechanische oder optische Funktionen dar. Das zweite Anschlusselement 82 und die zweite Funktion 92 sind ebenfalls aus entsprechenden Datenbanken des Speichers 2 entnommen. Die erste und die zweite Funktion 91, 92 sind durch eine logische Verknüpfung miteinander verbunden. [...]

In dem gewählten Beispiel stellt die erste Funktion 91 eine Relaisfunktion und die zweite Funktion 92 eine Controllerausgangsfunktion einer Controllerschaltung dar. Folglich wird beim Routen aus der ersten Funktion 91 ein Relais und aus der zweiten Funktion 92 eine Controllerschaltung. [...]"

Somit führt die Beschreibung im Detail aus, wie ein Benutzer beim Entwurf elektrische, mechanische oder optische Funktionen eines Leitungssatzes aus einer Funktionsbibliothek entnimmt und den Anschlusselementen zuordnet. Es ist somit klar, dass ein Fachmann die Bedeutung des Begriffs "technische Funktion" im Kontext des Anspruchs 1 versteht, da der Fachmann bei einem praktischen Entwurf unter Verwendung der Erfindung die Funktion(en) interaktiv aus einer Funktionsbibliothek auswählen und den Komponenten zuordnen muss. Es ist gerade ein wesentlicher Bestandteil seines Fachwissens, mit den unterschiedlichen technischen Funktionen und mit der Vorgehensweise des funktionalen Entwurfs vertraut zu sein. Das interaktive Zuordnen der technischen Funktion wenigstens einer ausgewählten Komponente ist auch explizit im Anspruch 1 des anhängigen Hauptantrags enthalten.

3.7 Die Kammer ist wie die Beschwerdeführerin der Auffassung, dass der abstrakte Begriff "Funktion" oder "technische Funktion" zwar breit, aber nicht unklar ist. Dies ergibt die Auslegung dieses Begriffs im Kontext des Anspruchs 1.

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3.8 Aus diesen Ausführungen ergibt sich, dass es auch nicht (wie in der erstinstanzlichen Entscheidung ausgeführt) unklar ist, wie eine technische Funktion eines Leitungssatzes einer einzelnen Komponente zugeordnet werden kann. Besitzt ein Leitungssatz beispielsweise technische Funktionen zur Datenübertragung und Stromversorgung, so lässt sich die technische Funktion der Datenübertragung einigen Komponenten, z.B. zwei Anschlusselementen, und die Funktion der Stromversorgung anderen Komponenten zuordnen (siehe auch das oben zitierte Ausführungsbeispiel mit der Relaisfunktion und der Controllerausgangsfunktion als Beispiel zweier Funktionen, die verschiedenen Anschlusselementen zugeordnet werden). Daher kann auch dieser von der Prüfungsabteilung behauptete Mangel an Klarheit seitens der Kammer nicht nachvollzogen werden.

Weiter bei T 0521/12

T 0697/11 (Computer system/KNAPP INVESTMENT COMPANY) of 1.7.2016

European Case Law Identifier: ECLI:EP:BA:2016:T069711.20160701

Computer system

Inventive step - main request (no)

Application number: 00914261.3
IPC class: G06F 17/21
Applicant name: Knapp Investment Company Limited
Cited decisions: T 1351/04

Board: 3.5.07

http://www.epo.org/law-practice/case-law-appeals/pdf/t110697eu1.pdf

2. The invention

2.1 The application relates to the generation of "information pages" on a computer and explains that it is known to generate information pages by inserting a set of data items extracted from a database into a fixed template. This method is said to have the disadvantage that it is difficult to produce variations in the layout and form of the information pages thus created.

2.2 The invention proposes generating information pages on the basis of "first order" and "second order" templates. A first-order template defines the overall format of an information page. A second-order template defines the format of a specified area of the information page.

Claim 1 of the main request reads as follows:

"A method of generating an information page in a computer system, said computer system including a database stored therein, said database having a set of templates and a set of data tables, each table containing a set of data items, the set of templates including a set of first

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order templates each for defining the overall format of an information page, and a set of second order templates each for defining the format of a part of an information page, wherein the overall format of an information page includes at least one specified area whose format is to be defined by a second order template, and wherein the database has control information associating each table or each data item with at least one second order template, said method including the steps of:

selecting a first order template;

performing a search on said database using at least one input parameter to retrieve a set of data items;

using the control information in the database to select at least one second order template associated with the retrieved set of data items;

retrieving the selected at least one second order template; and

using the first order template and the at least one second order template to create an information page containing a representation of the data items retrieved in the search."

4.4 The subject-matter of claim 1 hence differs from what is disclosed in document D1 in that

- the database contains a set of second-order templates for defining the format of specified areas of the information page;

- the database further contains "control information associating each table or each data item with at least one second order template", which is used to select and retrieve at least one second-order template associated with the retrieved set of data items; and

- in the step of creating the information page the retrieved at least one second-order template is also used.

4.5 Compared to document D1, these distinguishing features allow the designer of an information page to customise the format or layout of particular areas of the information page in dependence on the data items to be displayed on the page. One example given in the application is Figure 10, which shows a first-order display template 200 specifying two areas for second-order templates 202 and 204. These two areas are to display information about two products, the information about each product being formatted in accordance with an individual template (see point 2.32.3 above).

Applying these features to document D1 makes it possible, for example, to customise the display of each of the two product references 141 and 142 included in the group page shown in Figure 14 individually.

In the Board's view, **the mere wish for such layout customisation is non-technical and may therefore be used in the formulation of the problem to be solved**. The problem to be solved may thus be seen as that of modifying the method of document D1 to give the information page designer this additional flexibility.

Referring to decision T 1351/04 of 18 April 2007, the appellant argued that the formatting information of the invention was closely analogous to technical indexing information controlling how a computer conducted a search. The formatting information of the invention was used to control how the computer obtained the information which it was ultimately going to display to the user.

However, the Board's reasoning in the present case does not rely on particular information such as template or control information being non-technical. Formatting or display templates are known from document D1, and providing some form of "control information" to link data items or data item types to second-order templates is obvious.

4.8 The appellant further argued that, instead of providing second-order templates, the skilled person would pre-generate a number of first-order templates. Compared to that approach the invention reduced storage requirements.

Although it may be feasible to customise particular areas in the information pages of document D1 by providing or pre-generating a large number of versions of each (first-order) display template, each version including customised formatting of the particular areas, the Board considers that the existence of this alternative approach does not detract from the obviousness of the claimed solution. In particular, the fact that the claimed solution avoids the need to store a potentially very large number of pre-generated display templates is one of the foreseeable advantages of dynamically generating information on the basis of (in this case: second-order) templates.

4.9 It follows that the subject-matter of claim 1 of the main request lacks inventive step (Articles 52(1) and 56 EPC).

T 0483/11 (Document summary/ARIZAN CORPORATION) of 13.10.2015

European Case Law Identifier: ECLI:EP:BA:2015:T048311.20151013

METHODS AND APPARATUS FOR SUMMARIZING DOCUMENT CONTENT FOR MOBILE COMMUNICATION DEVICES

Catchwords:
A feature does not automatically inherit the technical character of the context in which it occurs. The feature must, itself, make a contribution to the technical context or the

technical aspects of the invention (technical inheritance fallacy - see points 2.7 and 2.8 of the reasons).

Application number: 03786541.7
IPC class: G06F 15/00, G06F 17/00
Applicant name: Arizan Corporation
Cited decisions: T 0641/00, T 0258/03

Board: 3.5.01

http://www.epo.org/law-practice/case-law-appeals/pdf/t110483eu1.pdf

1. The invention

1.1 At the date of the invention, mobile data connections were slow and mobile devices had limited processing and display capabilities. At the same time, electronic documents (word processor, worksheet, and spreadsheet documents) were large and contained "rich" content. Therefore, there was a need for a smaller, summary version of electronic documents for use by mobile communication devices.

1.2 According to the invention, the summary is generated by a server (figure 1, reference numeral 100) in response to a request from a mobile communication device (106) and is transmitted to the mobile device (page 4, lines 15 to 20). The user of the mobile device can use the summary to navigate the electronic document and request content corresponding to the summary entries from the server. This precludes the need to send the entire document to the mobile device (page 4, line 21 to page 5, line 3), at least initially.

1.3 The server generates the summary by selecting content from the electronic document. It does this using one of three processes (figure 3).

If the document has what the application calls "content structure", e.g. high-level descriptive information such as a table of contents, this information is used as a summary (page 5, lines 9 to 18). That is the "structured document summarization process".

If the document does not contain such information, any text formatting or paragraph formatting is analysed in order to find "section identifiers" (headers and titles) in the document which are used as summary entries. This "unstructured document summarization process" operates on the assumption that section identifiers are formatted differently from the text body, e.g. using a larger font size (page 6, line 28 to page 7, line 7).

If the document contains neither "predetermined content structure" nor text or paragraph formatting information, or if all the text is formatted identically, the "unformatted document summarization process" it used. This operates on the basis of differences in paragraph size: shorter paragraphs (those having few characters) are more likely to be section identifiers than longer paragraphs (page 7, lines 23 to 30).

Peter Bittner – European Patent Attorney

Claim 1 of the main request reads as follows:

A method of generating summary information for an electronic document (400, 500, 600) for use by a mobile communication device (106), the method being performed by one or more servers of a network and comprising:

analyzing a content structure or properties within an electronic document(400, 500, 600), wherein the content structure comprises a table of contents, pages, slides, and/or worksheets;

generating document summary information which includes an assemblage of a plurality of summary entries comprising sections of the electronic document without sending the entire electronic document, wherein the summary entries are selected from the contents of the electronic document based on the analysis of the content structure or properties, wherein

if the electronic document has a predetermined content structure then using a structured document summarization process (300) for selecting the plurality of summary entries from the electronic document based on the predetermined content structure,

if the electronic document has no predetermined content structure but has differences in text formatting and/or paragraph formatting then using an unstructured document summarization process (302) for selecting the plurality of summary entries from the electronic document based on the differences in text formatting and/or paragraph formatting, and otherwise

if the electronic document has no predetermined content structure and no differences in text formatting and/or paragraph formatting then using an unformatted document summarization process (304) for selecting the plurality of summary entries from the electronic document based on differences in paragraph size; and providing the document summary information for a mobile communication device.

2. Main request, inventive step

2.1 The Board considers D1 to be an appropriate starting point for assessing the inventive step of claim 1 according to the main request. D1 has, like the invention, the aim of making the content of an electronic document accessible on a mobile device (page 1, line 18 to page 2, line 7). In D1, the client (12) submits a document to the server (10) for processing. The server processes the document to extract sections of document content and a table of contents (page 8, lines 3 to 7; page 13, lines 18 and 19). If there is no table of contents available, the server creates one by analysing the document. The content excerpts and table of contents are transmitted to the mobile device (12), on request (figure 12; page 27, lines 5 to 7; page 30, lines 18 and 19; claim 7). The table of contents can be used as navigational information to request the content (claim 8).

2.2 In the statement of grounds, the appellant argued that D1 did not disclose the generation of a summary, but at oral proceedings before the Board it was common ground that the table of contents (TOC) in D1 represented a summary in the sense of the invention as claimed and described in the application. It was also common ground that D1 disclosed the structured summarization and the unstructured summarization based on differences in text formatting, as defined in claim 1 of the main request.

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At oral proceedings, the appellant identified the following differences of the invention over D1:

(i) "unstructured document summarization" based on differences in paragraph formatting;

(ii) "unformatted document summarization" based on differences in paragraph size.

2.3 The Board notes that summarization based on differences in paragraph formatting is defined in claim 1 alongside an alternative to summarization based on text formatting. It is enough for any one of these to belong to the prior art. Furthermore, the Board does not agree with the appellant that "paragraph formatting" is limited to paragraph alignment or indentation, but considers that this broad term covers text formatting for whole paragraphs in D1 (page 20, lines 14 and 15; figure 15). That notwithstanding, the Board sees the TAB character in D1 (page 20, line 25 to page 21 line 3) as a disclosure of paragraph indentation. The TAB character in D1 is used as a section identifier when constructing a table of contents in the unstructured summarization process.

2.4 Thus, the Board agrees with the Examining Division that <u>the only difference between the method of claim 1 and D1 is the "unformatted document summarization process" for extracting summary information based on differences in paragraph size</u>.

2.5 The appellant argued that the document summarization in claim 1 was technical since it was part of a technical context, namely a mobile communication system. Moreover, the summarization was provided in order to overcome the technical limitations of such a system. The "unformatted document summarization process", in particular, was technical for those same reasons. It allowed a larger class of documents to be summarized and used in the context of the mobile communication system.

2.6 <u>The Board does not dispute that the claimed method appears in a technical context.</u> The method is performed by technical means (one or more servers of a network), and, therefore, has technical character. This is relevant to the question of whether the invention is an invention in the sense of Article 52(1) EPC (T 258/03 "Auction method/HITACHI", OJ EPO 2004, 575).

<u>However, the question of inventive step, requires an assessment of whether the invention makes a technical contribution over the prior art.</u> Features which do not make such a contribution cannot support the presence of an inventive step (T 641/00 "Two identities/COMVIK", Headnote I, OJ EPO 2003, 352).

2.7 In the present case, **the contribution of the invention does not lie in the use of document summarization in a mobile communication system.** That is already in the prior art. **The contribution lies rather in the algorithm for extracting summary information from the electronic document, more specifically in the manner in which section identifiers are assumed in a text that has no differences in formatting.** In the Board's view, **<u>this is not technical. It is a mental act, such as would be performed by a human when reading a text</u>**.

2.8 Put in the technical context of the mobile communication system, <u>the unformatted document summarization has the consequence that a larger class of documents can be summarized</u>. However, **the Board does not consider this to be a technical effect. <u>The Board does not share the appellant's view that a feature automatically inherits the technical character of the context in which it occurs. The feature must, itself, make a contribution to the technical context, or the technical aspects of the invention.</u>**

2.9 For these reasons, the Board takes the view that the "unformatted document summarization process" does not make a technical contribution over D1. Furthermore, the Board considers that the implementation of this functionality would have been straightforward, using routine programming methods.

2.10 Therefore, the Board concludes that the invention as defined in claim 1 according to the main request lacks inventive step (Article 56 EPC).