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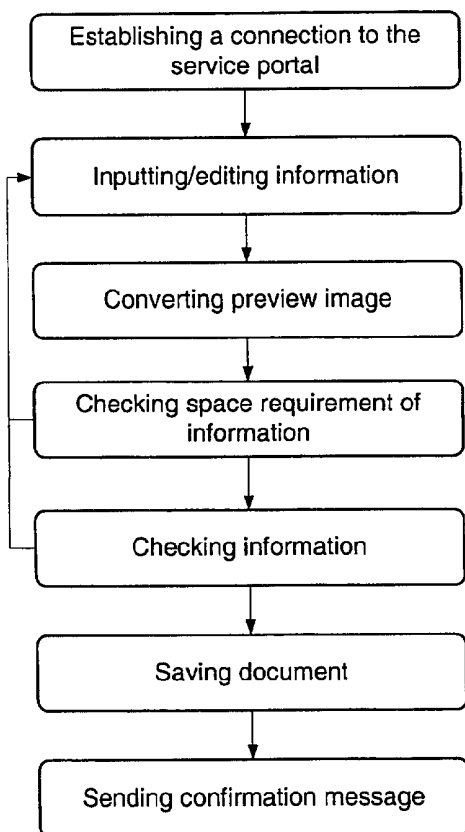
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[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR INSERTING DOCUMENTS



(57) Abstract: The invention relates to a method and system for inputting documents. According to the method, the supplier of the document establishes a connection to the service portal and inputs the information about the supplier and the contents of the document via the service portal to the database of the service provider. The service portal converts the contents of the document into a graphical preview image and checks that the document does not exceed the space reserved for the document. The supplier of the document checks the preview image and corrects the inputted information when required. After the checking, the service portal saves the document to the electronic database. The system according to the present invention comprises means for inputting documents in accordance with the method.

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Method and system for inserting documents.

The invention relates to a method and system according to the preambles of the independent claims set forth below for inputting documents. In addition, the
5 invention relates to a computer software product for implementing the method according to the invention.

In a typical situation with documents written by several different authors, the documents are collected and put together in a centralized manner by the publisher of
10 the publication. Thus, the documents are compiled into a database, which is processed into a publication by typesetting manually or via conversion into an electric database. Especially when typesetting is carried out manually, compiling the publication is very slow and laborious, and therefore the publishing costs of the publication may become considerably high. In this context, a publication means a
15 media-independent publication, which can be published e.g. as printed on paper or other material, or by saving the publication in electronic form and distributing it on CD-ROM or DVD or by publishing the publication saved in electronic form by means of e-mail or www pages.

20 The publishing costs of the publication are substantially reduced if the publishing can be carried out directly on the basis of the electronic publication, i.e. the electronic database, for example. Documents written by several different authors are compiled into a publication and inputted into an electronic database typically manually so that the author of the document delivers the document to the publisher
25 on paper, the contents of which the publisher inputs to the database by rewriting the document, for example, and thus saving the document into the electronic database, or by scanning the document and saving the image thus obtained into an electronic database. A problem with rewriting the document is that errors may arise during rewriting, and the errors may be significant with regard to the contents and
30 comprehensibility of the document.

A system for delivering documents in electronic form is described in the publication WO 00/72114. According to the publication, the authors of the documents deliver the documents to the publisher in electronic form as a file via the www service.
35 After this, the service provider can convert the format of the delivered file into a format in which the document is further processed. There are problems with this system, too, e.g. the fact that different authors use different programs for writing the documents, such as text processing programs, in which differences of the

manufacturer and version may cause substantial compatibility problems. In addition, different authors use different layouts and fonts in their documents, in which case laborious processing of the documents is required for achieving a stylistically uniform publication.

5

A further problem with the above described prior art is the fact that it is difficult for the publisher to control the size of the documents delivered by the authors, which becomes emphasized when there is a limited space reserved for each document in the publication. Thus an efficient control of the size of the documents with the
10 presently known techniques requires time-consuming processing of the documents, which may be difficult to implement.

Patent publication FI 981881 describes a method and apparatus for submitting an announcement, according to which the customer submits advertising announcements
15 via a network of the internet type. According to the publication, the customer writes the announcement in the internet browser, via which he/she has entered the internet pages of the printed magazine. The customer sends the text to the magazine, in which the announcement is processed and made up into a form which corresponds to the announcement in the printed magazine. The announcement is converted into
20 an image and sent to the customer, who can check the announcement and edit or accept it.

With regard to preparing a collection of publications with space restrictions, the main problem with the method and apparatus presented in the publication FI 981881
25 is the fact that the size of the material supplied by the customer is not controlled with regard to setting size limits to it, but the size of the material supplied by the customer is determined only for the purpose of invoicing the customer. In addition, the publication does not present a method by which the customer could add special characters to the material.

30

Thus it is the purpose of the present invention to eliminate or at least reduce the problems related to the above mentioned prior art and to provide a method and system for inputting documents.

35 Especially the method and system according to the present invention has the purpose of enabling automatic control and, when required, restriction of the total space requirement of the publishing format of the document to be inputted in connection with the input of the document.

In addition, the method and system according to the present invention have the purpose of enabling the input of documents to an electronic database via a service portal on the Internet, which enables adding special characters in the document when required and checking the document in its essentially final publishing appearance. Documents inputted to the database can be compiled into a publication.

In order to implement the above mentioned purposes, the method and system according to the invention are mainly characterized in what is set forth in the characterizing parts of the accompanying independent claims.

According to a typical method according to the invention, the inputting of the document is carried out so that the supplier of the document establishes a connection to the service portal. In this context, the supplier of the document means a person who has prepared the contents of the document, contributed to the preparation of the contents of the document or transmits the document to the service portal on behalf of the actual author/authors. After the connection has been established, the supplier of the document inputs the information about the supplier and/or the author(s) of the document and the contents of the document via the service portal to the database of the service provider. In this context, inputting the contents of the document means transferring the text, figures and tables contained in the document or their set of values to the service portal by writing and/or the copy-paste operation or some other way in which information is at least not primarily transferred as a complete file.

After inputting the information and the contents of the document, the service portal converts the contents of the document into a graphical preview image, from which the supplier of the document checks the inputted information. If the supplier of the document detects a spelling mistake in the document, for example, the supplier corrects the document, and after a new conversion checks the document again.

The service portal checks before conversion, during conversion or after conversion that the size of the inputted document does not exceed the space reserved for one document in the publication. Automatic control of the size of the document prevents inputting too long documents to the server. In addition, the editing carried out for shortening the document remains the responsibility of the supplier of the document, and a separate shortening step carried out by the publisher is not required.

The size of the document is preferably checked on the basis of the space required by the final publishing appearance of the document. Checking is carried out by

comparing the size of the preview image created in connection with conversion (surface area, size in millimeters or in corresponding units of measurement) to the size reserved for the document. Thus the greater space requirement of special characters and calculation formulas, for example, does not cause an error in
5 estimating the size of the document, which could be the result if checking were carried out by monitoring the number of characters contained in the document and by calculation.

When the document is in acceptable form, the service portal saves the document in
10 the database in the final form. The documents saved in the database are preferably utilized by collecting at least part of the documents into a publication.

The major advantage of the present invention is the fact that the supplier of the document can check the contents of the inputted information and the document by
15 means of a graphical preview image. This provides the advantage that the appearance and layout of the inputted document is not dependent on the terminal device and does not require specific additional software or additional components for the terminal device. Basically it is sufficient that the terminal device is capable of displaying graphics. In addition, the responsibility for checking the correctness of
20 the contents of the document can be moved from the publisher of the publication to the supplier of the document. In addition, the system prevents supplying too large documents, in which case a laborious shortening of the documents before publishing the publication is not required. Therefore the compiling and thus also publishing of the publication can take place in a very short time. In addition, the appearance of the
25 documents included in the publication (titles, authors etc.) can be made uniform in the whole publication.

In a preferred method according to the invention, the service portal automatically creates an index of the documents saved in the database and/or selected for
30 publishing, using e.g. the name of the person, the title of the document, a keyword etc. as a classification criterion. Thus the index is created without manual, laborious measures. In addition, changes made in the publication or the documents to be published in the publication are automatically updated to the indexes created.

35 In a preferred method according to the invention, the supplier of the document inputs the information with a terminal device of the service portal. The terminal device can be of many different types, such as a PDA (Personal Digital Assistant), an internet terminal, a web kiosk or other device with means for establishing a data

- transfer connection between the device and the server that provides the service. The display device of the terminal can be, for example, a television, a display terminal, an LCD display, a data projector, electronic paper or a corresponding device capable of displaying graphical content. For transferring data between the terminal device and the service portal, it is possible to use e.g. the well-known data transfer according to the HTTP (HyperText Transfer Protocol), the SMS (Short Message Service) protocol, the WAP (Wireless Application Protocol), the GPRS, UMTS or i-mode protocol or some other data transfer protocol.
- 10 In a preferred method according to the invention, at least one or several of the following pieces of information are inputted as the contents of the document: the name of at least one author of the document, the title of the document, one or more keywords describing the contents of the document, the document classification, the text of the document with possible special characters and images, figures, tables and/or diagrams possibly accompanying the text. The information inputted as the contents of the document function at least partly as the contents of the document to be published, and part of the inputted information can be used for the classification or sorting of the document in the database and/or the publication.
- 15 20 In a preferred method according to the invention, special characters contained in the document data, such as Greek alphabet, are inputted by selecting from a special character input window, input menu or list provided by the service portal and displayed on the terminal device of the user. Thus the inputting of the document data is not dependent on the settings of the terminal device of the document supplier, such as the character set, but the special characters can be integrated into the text of the document simply by selecting them from the service portal.
- 25 In a very advantageous method according to the invention, the graphical preview image is essentially identical with the final publishing appearance of the document.
- 30 In this context, the preview image being essentially identical with the final publishing appearance means that the layout of the document and the size proportions of different parts are similar in the preview image and the final publication.
- 35 The graphical preview image can be advantageously of the jpeg, gif, tif, pdf, png or bmp format or some other format suitable for presenting a preview image. The use of a general and internationally known image format as a preview image increases the usability of the service portal.

The service portal used in the method according to the invention is preferably composed of one or more web forms.

- 5 In a preferred method according to the invention, a confirmation message containing the document data as an image file representing its final appearance is sent to the supplier of the document by the service portal after saving. The confirmation message allows the supplier of the document to make sure that the document has been saved in the database.
- 10 A typical system according to the present invention comprises a service portal, which comprises at least means for inputting the pieces of information that constitute the document and means for inputting the special characters possibly included in the document data. In addition, the system comprises means for checking the size of the inputted document so that said means are arranged to check
- 15 the size of the document on the basis of the space required by the final publishing appearance of the document. The service portal also comprises means for converting the inputted information that constitutes the document into a graphical preview image, and means for displaying the preview image to the person who inputs the document information. Furthermore, the service portal comprises means for
- 20 correcting the inputted information and for saving it in the database in electronic form. In addition to that, an advantageous service portal contained in a system according to the invention comprises means for creating a publication from at least part of the documents saved in the electronic database.
- 25 In an advantageous system according to the invention, the means for converting the document data into a graphical preview image comprise at least means for converting the inputted information into an image file comprising the image, which is arranged to represent the document in the essentially final publishing appearance.
- 30 In an advantageous system according to the invention, the means for inputting the possible special characters included in the document data comprise at least a window from which the special characters are arranged to be selected and to be added to the document data.
- 35 The service portal contained in a very advantageous system according to the invention comprises at least one electronic form, which has been implemented in accordance with the general html standard. It is also possible to use java script in the

system according to the invention. Due to the implementation, the service portal is in practice available almost all over the world and with almost all internet browsers.

5 The method according to the invention is typically implemented with a computer software product, which can be directly loaded to the central memory of the computer, or with a computer software product saved in a computer-readable medium, which computer software product contains program code elements for the implementation of a method according to the invention, when said computer software product is run in a computer. In this context, a computer software product means independent computer software or a part of computer software, which may
10 comprise one or more program code elements. A program code element means an element that consists of one or more computer-readable instructions or commands. In this context, a computer-readable medium means all media in which it is possible to save permanently or temporarily information, instructions, commands, instruction
15 or command sets or the like, which are readable by a computer. Media like this include hard discs, mass memories, cache memories, diskettes and CD-ROM discs. The software product can thus be used from the server of the service provider or it can be saved on the user's terminal device where it is used by the user.

20 A typical computer software product as mentioned above, which is saved in a computer-readable medium, comprises at least the following program code elements:

- a program code element for performing the computer to establish a connection to the service portal and for enabling the input of data to the database,
- 25 - a program code element for performing the computer to convert the inputted data into a graphical preview image,
- a program code element for performing the computer to check the size of the inputted document so that the size of the document is checked on the basis of the space required by the final publishing appearance of the document,
- 30 - a program code element for performing the computer to present a graphical preview image, and
- a program code element for performing the computer to save the inputted data to a database,

when the computer software product is run in the computer.

35 An advantageous computer software product according to the invention also comprises a program code element for performing the computer to compile a publication of at least part of the documents saved in the database. By means of the

computer software product, the method according to the invention for inputting and publishing documents can be used in a computer or as part of some other device, which includes means for running the computer software product so that by means of it the method according to the invention can be automated.

5

An advantageous computer software according to the invention comprises a program code element for checking, classifying, accepting or sorting the documents saved in the database or for enabling any of the above mentioned measures. Due to the above mentioned program code element, the documents in the database can be
10 e.g. checked or classified, either automatically or e.g. by measures carried out by the service provider.

In the following, the invention will be described in greater detail with reference to the accompanying drawing, in which

15

Figure 1 shows the system according to the invention schematically, and
Figure 2 shows an example of the application of the method according to the invention as a flowchart.

20 Figure 1 shows the system according to the present invention schematically. The system comprises a terminal device 1 at the disposal of the supplier of the document and the information system 2 of the receiver of the document, which comprises a service portal 3, and between which a data transfer connection 4 can be established. The terminal device 1 can be of various types, such as an internet terminal, a web
25 kiosk or other device with means for establishing a data transfer connection between the device and the service portal, i.e. the device is capable of transmitting and receiving data transfer packets. A service portal means a device or software, which is capable of passively waiting for connection requests from one or several terminal devices and communicating with terminal devices that established a connection with
30 the service portal. Such communication typically comprises transferring and inputting to the system the information concerning the document to be supplied and its contents. The service portal can also be capable of establishing a data transfer connection with one or several terminal devices for transferring data transfer packets to the terminal devices. Data transfer packets like this can comprise
35 transmitting some announcements, such as information about successful delivery of the document. In addition, the information system 2 comprises a database 5 for saving the documents supplied to the system. The invention makes use of well known data transfer protocols, such as the HTTP (HyperText Transfer Protocol),

SMS (Short Message Service) protocol, WAP, GPRS, UMTS or i-mode or other corresponding data transfer protocol, and therefore their technical details are not further explained here.

- 5 Figure 2 shows an example of the application of the method according to the invention in the submission of abstracts to a conference organizer. A person, i.e. a user of the system who wants to submit an abstract of his or her research work to the conference organizer with the purpose of becoming accepted to present the research work and to include an abstract in the abstract publication of the conference
- 10 establishes a connection to the service portal of the conference organizer with a terminal device, i.e. a computer with an internet browser, for example. In the service portal the person fills in the personal data and information about the abstract requested by the portal. Information like this include the name and organization of the author(s) of the abstract, the contact information of the person who presents the research, the title of the abstract and the subject area or theme desired. The person
- 15 inputs the text of the abstract and selects the required international characters and characters used in scientific text from a special character input window, menu or list offered by the service portal and presented on the terminal device of the user. The person can also attach figures and tables to the abstract. In addition, the person
- 20 provides the keywords of the abstract that describe its contents. The keywords can be used later in the search index of the abstract publication, for example. Giving the keywords for the abstracts can take place e.g. so that the person selects the keywords from the title of the abstract or gives other words that describe the abstract.
- 25 Figures and tables can be included as part of the document e.g. so that a file containing a figure and/or table, which has been created with a spreadsheet program, for example, is transferred to the service portal with the terminal device of the supplier of the document. With this method, a problem may arise in some applications from the fact that the resolution of a figure and/or table supplied as a
- 30 file can be very low, in which case it is not ready for printing as such and thus can not be accepted as part of the document.

A more advantageous way of including the figures and/or tables as part of the document is to create the figures and tables in the service portal from a set of values

35 supplied by the user, whereby it is possible to define in greater detail the resolution to be used and the space required by the figure/table in the final publishing appearance, whereby it becomes easier to check the space required by the document. Creating the figures/tables in the service portal also improves the uniformness of the

publications to be compiled from the documents, because all figures/tables are created with the same software.

5 In practice, adding a figure in the service portal can take place in the following manner, for example. When the user wants to add a figure to the publication, he/she selects a special character from a list, table (etc.) of special characters, the system interprets the character and adds the information about the starting point of the figure to the document. After this the system presents a dialog, which allows the user to add a set of values, the name of the figure, the units of the axes and the titles
10 to the system. When the set of values has been inputted, the user selects the type of the figure e.g. from a selection list (bar, pie etc.), and the system produces a graphical preview image for the user, which image is essentially the same as the final publishing appearance. After this, the user can make the required corrections to the figure and/or accept the appearance of the figure. When the user has accepted
15 the figure, it is attached to the final document at the place defined by the user. The space reserved for the text is reduced by the space taken by the figure.

Tables are added in a similar manner, but the user specifies the number of rows and columns and adds/removes them later if required.

20 The allowed graph types and the maximum number of rows in a table can be specified in the system, which further improves the uniformness of the publications compiled from documents.

25 When the person has inputted all the information required, the service portal creates a graphical preview image of the inputted information, the preview image being essentially similar to the abstract published in the abstract publication.

30 The service portal compares the size of the preview image in column millimeters to the space reserved for the document, and asks the person, when required, to decrease the amount of text, figures or tables and/or to reduce the size thereof, if the preview image created is too large. The service portal could even create the space required by the inputted information and content before creating the graphical preview image e.g. by calculatory estimation or by creating a separate checking
35 image, which would not contain the actual inputted information, for example, being a so-called dummy image, the size of which would be determined on the basis of the inputted information and the amount of the content. In some cases, using the above

mentioned so-called dummy image could fasten data transfer between the terminal device of the person and the service portal, thus fastening the document input.

5 The person checks the inputted information and, according to need, corrects the information as many times as he/she desires or as requested by the service portal. When the form of the abstract is acceptable, the person accepts the abstract, and it is saved in the database of the conference organizer. In connection with saving, the abstract is given an identification number and an abstract number. Information about successful saving and the identification number of the abstract is sent as a
10 confirmation message to the person who supplied the abstract.

With the method and system according to the present invention, the abstract inputted to the database is transferred for assessment by the persons who assess the abstracts. If the person carrying out the assessment feels that the abstract is in the wrong
15 category, the abstract is moved to the class of undefined abstracts. These abstracts are checked by appointed members of the assessment committee, who give new classifications to the abstracts. If a predetermined number of reviewers, e.g. two, accept the abstract, it is marked as complete, whereby it is ready for publishing. Information about an accepted abstract is also sent to the author of the abstract.

20 When all the abstracts are in the database, the system makes up the abstracts accepted to the publication as pages of a book and automatically creates an index of the documents saved in the database and/or selected for publishing, in which index the classification criterion may be, for example, the name of the person, the title of
25 the document, a keyword etc., and prints the made up pages to a PDF file, which can be directly used as a print original by the printing house. A CD disc can also be printed from the information, and the information can be published in the www service of the conference organizer.

30 In addition, the database created with the method and system according to the present invention can also be utilized by adding the database to the registration base of the conference, whereby a uniform service of the conference organizer can be achieved. The database can also be connected with the booking systems of travel agencies or hotels, whereby a wider and more comprehensive service can be offered
35 to the conference guests.

The invention is in no way limited only to the embodiment described above, but it can be varied within the scope of the inventive idea defined by the attached claims.

Besides submitting abstracts, the method and system according to the invention can be used for supplying and publishing of product catalogues, for example.

Claims

1. A method for inputting documents, **characterized** in that the method comprises at least steps, in which
 - 5 - the supplier of the document establishes a connection with the service portal,
 - the supplier of the document inputs the information about the supplier and the contents of the document via the service portal to the database of the service provider,
 - the service portal converts the contents of the document into a graphical preview
10 image,
 - the service portal checks before conversion, during conversion or after conversion that the size of the inputted document does not exceed the space reserved for one document in the publication,
 - when required, the supplier of the document reduces the contents of the document
15 and checks the inputted information from the preview image created by the service portal,
 - when required, the supplier of the document corrects the inputted information and checks the document again after new conversion, and
 - the service portal saves the document in the electronic database.
- 20 2. A method according to Claim 1, **characterized** in that at least part of the documents saved in the electronic database are collected into a publication.
3. A method according to Claim 1 or 2, **characterized** in that the service portal
25 automatically creates an index of the documents saved in the database and/or selected for publishing, using e.g. the name of the person, the title of the document, a keyword etc. as a classification criterion.
4. A method according to any one of the preceding claims, **characterized** in that the
30 supplier of the document inputs the information to the service portal with a terminal device, and that data transfer between the terminal device and the service portal is carried out according to the HTTP, SMS, WAP, GPRS, UMTS or i-mode protocol, for example.
- 35 5. A method according to any one of the preceding claims, **characterized** in that at least one or several of the following pieces of information are inputted as the contents of the document:
 - the name of at least one author of the document,

- the title of the document,
- one or more keywords describing the contents of the document,
- classification of the document,
- the text of the document with possible special characters, and
- 5 - images, figures, tables and/or graphs possibly attached to the text.

6. A method according to any one of the preceding claims, **characterized** in that special characters contained in the document data are inputted by selecting from a special character input window, input menu or list provided by the service portal and
10 displayed on the terminal device of the user.

7. A method according to any one of the preceding claims, **characterized** in that the graphical preview image is essentially identical with the final publishing appearance of the document.

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8. A method according to Claim 1, **characterized** in that the size of the document is checked on the basis of the space required by the final publishing appearance of the document.

20 9. A method according to any one of the preceding claims, **characterized** in that the service portal is constituted by one or more web forms.

10. A method according to any one of the preceding claims, **characterized** in that a confirmation message containing the document data as an image file representing its
25 final appearance is sent to the supplier of the document by the service portal after saving.

11. A system for inputting documents, which system comprises a service portal and terminal device for inputting the document data and saving them in the database,
30 and means for establishing a connection between the service portal and the terminal device, **characterized** in that the service portal comprises at least

- means for inputting information that constitute the document,
- means for inputting the special characters possibly contained in the document data,
- means for checking the size of the inputted document so that said means are
- 35 arranged to check the size of the document on the basis of the space required by the final publishing appearance of the document.
- means for converting the inputted information that constitutes the document into a graphical preview image,

- means for displaying the preview image to the person who inputs the document data,
- means for correcting the inputted information, and
- means for saving the inputted information in the database in electronic form.

5

12. A system according to Claim 11, **characterized** in that the system comprises means for creating a publication of at least part of the documents saved in the electronic database.

10

13. A system according to Claim 11 or 12, **characterized** in that the means for converting the document data into a graphical preview image comprise at least means for converting the inputted information into an image file comprising the image, which is arranged to represent the document in the essentially final publishing appearance.

15

14. A system according to any one of the Claims 11 to 13, **characterized** in that the means for inputting the possible special characters included in the document data comprise at least a window from which the special characters are arranged to be selected and to be attached to the document data.

20

15. A system according to any one of the Claims 11 to 14, **characterized** in that the service portal comprises at least one electronic form, which has been implemented in accordance with the general html standard.

25

16. A computer software product, which is saved in a computer-readable medium, **characterized** in that it comprises at least

- a program code element for performing the computer to establish a connection to the service portal and for enabling the input of data to the database,
 - a program code element for performing the computer to convert the inputted data into a graphical preview image,
 - a program code element for performing the computer to check the size of the inputted document so that the size of the document is checked on the basis of the space required by the final publishing appearance of the document.
 - a program code element for performing the computer to present the graphical preview image, and
 - a program code element for performing the computer to save the inputted data to the database,
- when the computer software product is run in the computer.

17. A computer software product according to Claim 16, **characterized** in that it comprises a program code element for performing the computer to compile a publication from at least part of the documents saved in the database,
- 5 18. A computer software product according to Claim 16 or 17, **characterized** in that it comprises a program code element for checking, classifying, accepting or sorting the documents saved in the database or for enabling any of the above mentioned measures.

1/2

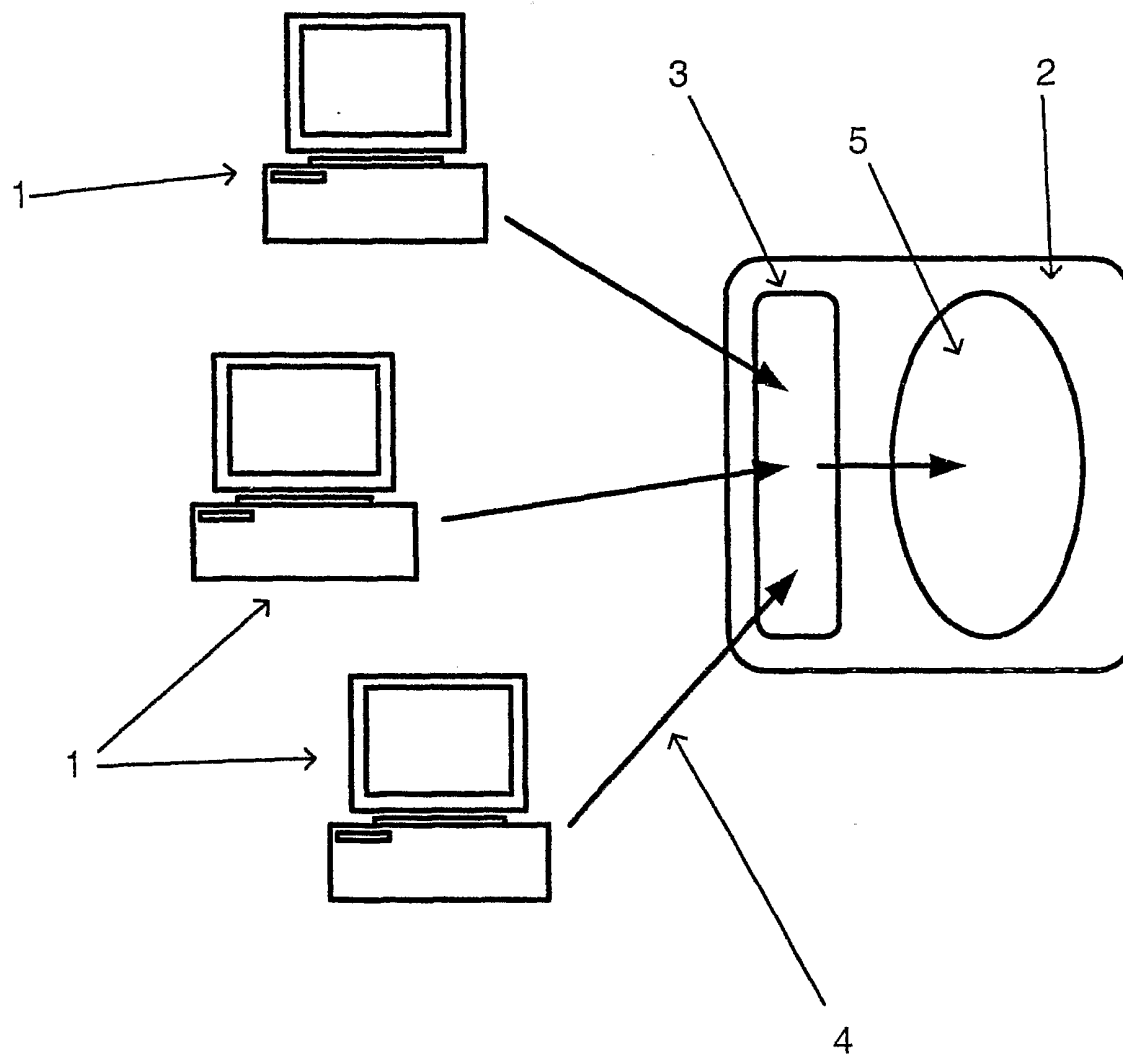


FIG. 1

2/2

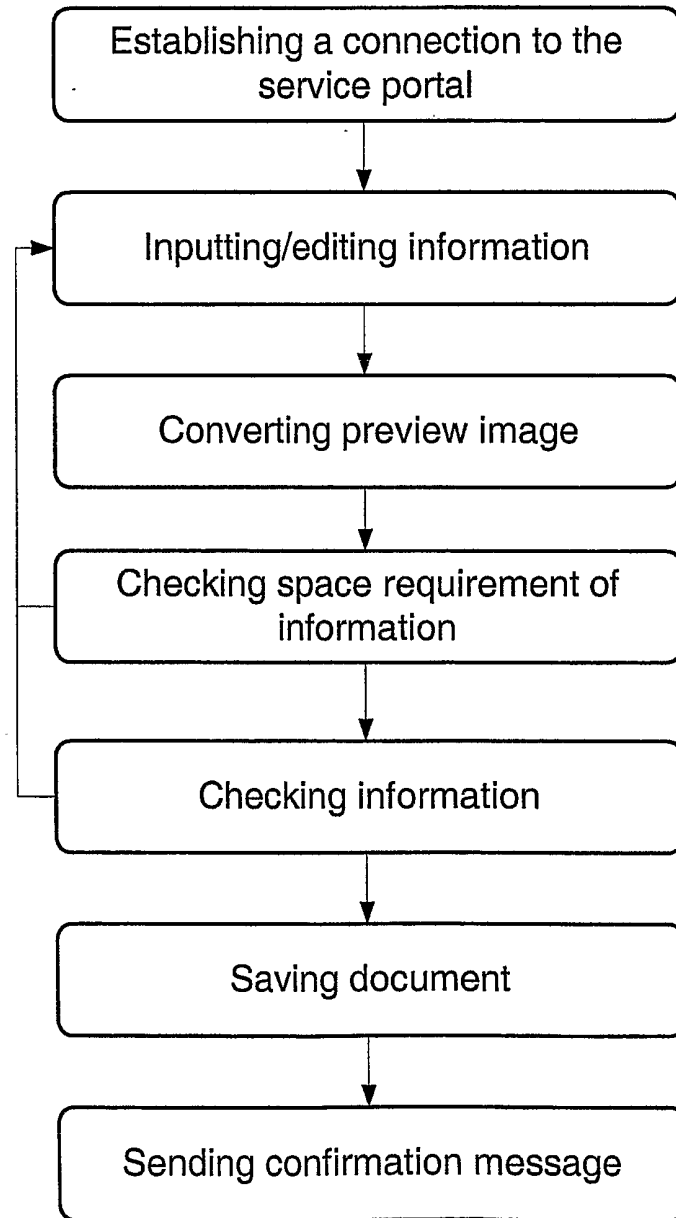


FIG. 2

INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 02/00162

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: G06F 17/30, G06F 17/60

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 0048098 A1 (CARDEN JENNINGS PUBLISHING CO., LTD.), 17 August 2000 (17.08.00), page 2, line 16 - line 31; page 11, line 5 - line 27; page 15, line 19 - page 16, line 28, claim 1, abstract --	1-18
Y	WO 0072114 A2 (SCHOLARONE, INC.), 30 November 2000 (30.11.00), page 3, line 24 - page 4, line 24, abstract --	1-18
Y	WO 9808176 A1 (MOORE BUSINESS FORMS, INC.), 26 February 1998 (26.02.98), page 2, line 16 - line 32; page 6, line 23 - line 29; page 8, line 2 - line 11, page 13, line 29 - line 30; page 14, line 25 - line 27, claim 1, abstract --	1-18

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

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"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

27 June 2002

Date of mailing of the international search report

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 02/00162

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 2254460 A (LASERTYPE DEVELOPMENT LIMITED), 7 October 1992 (07.10.92), page 2, line 13 - page 3, line 10, abstract --	1-18
A	US 6122643 A (PAIK, Y. ET AL), 19 Sept 2000 (19.09.00), column 2, line 29 - line 61; column 5, line 8 - line 52, figure 2, abstract --	1-18
A	US 5870552 A (DOZIER, L.T. ET AL), 9 February 1999 (09.02.99), column 3, line 41 - column 4, line 44, abstract -- -----	1-18

INTERNATIONAL SEARCH REPORT

Information on patent family members

10/06/02

International application No.

PCT/FI 02/00162

Patent document cited in search report			Publication date	Patent family member(s)		Publication date
WO	0048098	A1	17/08/00	AU	3226800 A	29/08/00
				EP	1188128 A	20/03/02
WO	0072114	A2	30/11/00	AU	5281800 A	12/12/00
				EP	1192515 A	03/04/02
WO	9808176	A1	26/02/98	AU	722766 B	10/08/00
				AU	3982097 A	06/03/98
				BR	9712789 A	14/12/99
				CN	1231750 A	13/10/99
				EP	0920667 A	09/06/99
				JP	2002501635 T	15/01/02
				NZ	334700 A	29/07/99
GB	2254460	A	07/10/92	GB	9107065 D	00/00/00
US	6122643	A	19/09/00	NONE		
US	5870552	A	09/02/99	AU	705581 B	27/05/99
				AU	5353896 A	16/10/96
				CA	2216826 A	03/10/96
				EP	0818013 A	14/01/98
				JP	3173660 B	04/06/01
				JP	11503251 T	23/03/99
				JP	2001195394 A	19/07/01
				US	6393469 B	21/05/02
				WO	9630846 A	03/10/96