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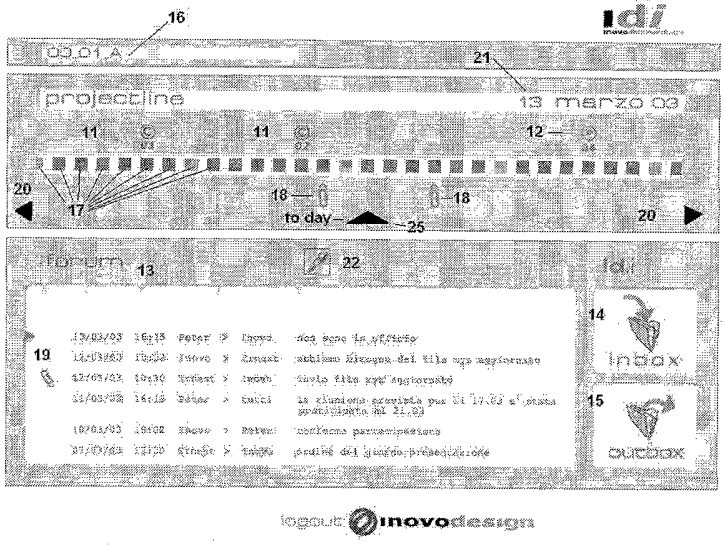
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[Continued on next page]

(54) Title: A SYSTEM AND METHOD FOR REPRESENTATION AND INTERACTIVE MANAGEMENT OF PROJECTS



(57) Abstract: A system and a method for representation and interactive management of projects, according to which it is possible to record, from remote workstations and by means of the Internet, the development of said projects and to catalogue the morphological modifications of the project in time. The file or set of files that are to be transferred between the persons involved in the project are attached to a message entered in a discussion window or Forum (13), which constitutes the agenda of the project, in such a way that it is possible to make an analysis of the transactions that have been made and of the steps of Control and Presentation, in addition to the possibility for the user to know at any moment the state of advance of the project and to intervene on the basis of the discussions appearing in the Forum (13) and that have taken place.

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TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

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A system and method for representation and interactive management of projects

DESCRIPTION

The present invention relates generically to the possibility of making interactions, on the part of certain users, exploiting the global information network, by means of digital and virtual forms of representation designed to favour the analysis of the form of an object/project and more specifically describes a system and a method for representation and interactive management of resources (both production resources and non-production resources) during a process of implementation for the production of a project.

The new global economy is the reference model for the future. It is hence necessary to work within said system, and the acquisition of markets, which geographically may even be very far apart from one another, is an increasingly real need, not only from the standpoint of the expansion in itself, but also as regards the ever-increasing possibility of obtaining local incentives and advantages of a

geographical nature.

For the purpose of managing and running production, it is necessary to have complete control of all the resources employed; the end result may be represented by a considerable reduction in the total costs and by a dynamic management of the production strategy.

The excellent level of representation offered by recent digital technology enables display and representation of the objects on a digital platform, rendering useful an interactive management of the object/project that will enable an analysis, from remote workstations, of the transactions that have been made, in addition to the possibility of verifying the state of the project in time on the basis of the dialogue sustained.

A purpose of the present invention is, then, to provide a system for representation and interactive management of projects, which will offer the possibility for various remote users, located geographically in workstations that may even be considerably distant from one another, of displaying a production process and being able to intervene in real time on the management of the various steps of implementation thereof.

Another purpose of the invention is to propose a

system for representation and interactive management of projects which will enable a considerable reduction in the total production costs and the organizational problems deriving from the distance existing between the various production centres, so enabling an extreme speed of analysis and of decision-making organization to be achieved.

A further purpose of the invention is to provide a system for representation and interactive management of projects, so as to offer, at each moment, an overview of the production process and a set of relevant statistics, on line and in real time.

Yet a further purpose of the invention is to propose a method of representation and interactive management of projects, implemented by means of the system referred to above, which will enable an analysis of the transactions that have been made, in addition to the possibility of interpolating in the timing of the project, so obtaining a considerable saving in terms of the times involved and in the costs of implementation of the project thanks to the certainty of the communications recorded in the Forum.

Advantageously, the communication system forming the subject of the present invention records the project development, enabling cataloguing of the

morphological modifications of the object/project on the Timeline. Communication also comprises a process of transfer of the files, which is obtained by means of a private web server on which the files that are to be transferred to other participants in the project are uploaded.

From the server, the files received in the Inbox are downloaded. Within the file-communication tool, Inovo Data Interchange, consisting of the Inbox (downloading) and Outbox (uploading) softkeys, it is possible to transfer, between the persons involved in the project, files attached to a message entered in the Forum, which constitutes the agenda of the project and of the transactions that have been made.

Further purposes and advantages of the present invention will emerge more clearly from the ensuing description, which relates to a preferred but non-limiting example of application of the invention and from the attached drawings, in which:

- Figure 1 illustrates the screen on which a basic layout of the system for representation and interactive management of projects according to the present invention appears; and
- Figure 2 also illustrates a window, for the composition of the messages, through an appropriate

control located on the basic screen of Figure 1.

With particular reference to Figure 1, the reference number 10 designates a Timeline, i.e., a time bar or segment described by a line of points 1) corresponding to a single day comprised between the end and the start of a project. The reference number (20) designates the cursors for scrolling of the Timeline (10), and the single day 17 represented by the contents box is indicated by the date entered on the top right 21 of the Timeline. Appearing on the Timeline are Control icons 11 and Presentation icons 12 (note: the progressive number under the Control and Presentation icons indicates the succession thereof), which contain files for immediate display of the current object/project.

The Control icons 11 and Presentation icons 12 include folders containing the files that enable description of the project in progress; these softkeys, control and presentation, which include folders arranged in chronological order on the Timeline 10, statically document the evolution of the project in question at the reference date.

If the user is dealing with more than one project at the same time, it will be possible for him to display the same screen (the one represented in Figure 1)

independently for each individual project 16 and interact in the same way with the screen itself. The system and the transmission system are encrypted and totally secure to guarantee maximum privacy and confidentiality.

The basic screen of Figure 1 of the system for representation forming the subject of the present invention is made up of a set of blocks, such as the Timeline 10, already mentioned previously, a Forum section 13 and the softkeys Outbox 14 and Inbox 15. Furthermore, a cascade list 16 located on the top left of the screen enables selection of the specific project.

The user can select Control or Presentation, as complement of the Timeline 10 or, using the cursors 20, scroll the Timeline 10 on the day that he wishes and automatically see the Forum 13, and position himself on the corresponding date, or the next date (as illustrated in the example of Figure 1), to control the corresponding communications.

The Control and Presentation icons represent official moments of project relation with the client. These icons are connections to file folders that contain the object/project in question, presented in the modalities that are most appropriate for the specific

case.

The Flag icon 18 and 19 represents the transition of a file or sets of files that has taken place between the users that participate in the project.

Track is kept of the object of said transition for a given period, after which there will be kept in the Forum only the name of the file or files that have travelled within the Inovo Data Interchange. In particular, the icons Outbox 14 and Inbox 15 constitute the management module of the transactions of the files between the users, whilst the icons Flag 18 indicate the transactions of attached files or sets of files that have been made. By clicking on a Flag icon 18, there is indicated in the Forum 13 with a similar symbol (reference 19) the transaction to which the specific icon refers.

Contained in the Inbox icon 15 are the files received via the system of interactive management according to the invention, whilst the user concerned will find in the Outbox icon 14 the files that have been sent. The icon Outbox moreover enables preparation of the dispatch and contains the list of the files sent, via the system software application, to the participants in the project.

Operation of the system for representation and

interactive management of projects, according to the present invention, is substantially as described in what follows.

The users that have access to the system can be assigned to one project, no project, or a number of projects, whilst within each project there are no other separations in terms of variations of the functionalities. Each access is in turn limited to the projects in which the user participates.

Upon opening of access of the system there is displayed the Timeline 10 of the project in question, which represents the extension of the project as a function of time.

The first day contemplated on the bar 10 coincides with the opening of the project, and the last day contemplated coincides with its closing. The bar 10 displays on the screen a time window of 30 days, but makes available cursors 20 enabling scrolling of the Timeline. The days present on the bar 10 are coloured in a different way according to whether it is a working day or holiday and are indicated in particular by icons set in the corresponding position if on that day there has been a Control 11, a Presentation 12, or simply a data transaction 18.

By clicking on the icons Control 11 or Presentation

12 (Figure 1) corresponding to a day 17 in which there is a Control or a Presentation, it is possible to consult the files associated to the event. Presentation and Control are represented graphically by means of an interface of exploration of the directories, which contains the files divided according to type and use (three-dimensional and two-dimensional texts, and multimedia files).

Updating of Timeline, Control, and Presentation comes about, finally, by the action of the System Manager. When the application is accessed, the current day is displayed on the bar 10 (reference 25) if said date is internal to the project; otherwise, if the project is already terminated, the last day is highlighted and, if the project still has to start, the first day indicated as date of start of project is highlighted. By scrolling the Timeline until a particular day is reached, it is possible to see the Forum 13 scrolling simultaneously and hence check the communications regarding that particular day, and the enabled user will be able to access the data files contained in the system in the Control and Presentation icons, in read-mode, download-mode and direct-printing mode.

The variations of the Control and Presentation list are notified to the user via the presence of new

icons of Control 11 or Presentation 12, by a message in the Forum 13 and by an e-mail message (optional) that the user receives at his own address. The contents of Control 11 and Presentation 12 can immediately be downloaded into the memory and/or displayed on a display.

Three-dimensionaland two-dimensional representations, texts, multimedia files, etc., assist Presentation 12 and Control 11, in such a way that the project information will be shared in the ways and in the forms made available by multimedia technology, which can be fully integrated in the present invention.

The Forum 13 is interconnected to the scrolling of the Timeline 10 and constitutes the basic platform for exchange of messages and drawing up of a project agenda, which is available to all the participants in the project and accompanies the project itself.

At the end of the project, the Forum 13 will be closed, and it will not be possible to make further additions, whilst to each message dictated during running of the project, there may be attached sets of files, including large ones reversed from the folder Outbox 14 and downloaded by the addressee in the folder Inbox 15).

The users hence have access to the Control 11 and Presentation 12 material regarding a project, in addition to the possibility of participating in the Forum and the possibility of transmitting files to the users that participate in the project.

The Forum messages may be read by all the participants in the workgroup of the project displayed. The files attached to the message can be sent only to the users selected by the sender.

The peculiar characteristics of the Forum 13 are those of storing in an official way all the communications regarding the project and offering a tool for communication between the participants in the project. Finally, within the Forum 13 there are highlighted the transactions of material with indication of the sender and of the addressees and the names of the files attached to the message.

It is possible, then, to enter a new message in the Forum 13 by clicking on an appropriate softkey 22 and signal entry of a communication in the Forum 13 to the persons concerned, also using e-mail means (see Figure 2). The function can be selected by means of a further check box 23 within the softkey 22 for sending the message within the Forum 13.

Transfer of the files attached to the message of the

Forum 13 is obtained using an application which enables in a fast (even for files that are very weighty in terms of Mbytes), safe, complete and inaccessible way the software material to be delivered to the addressees involved in the workgroup. A control softkey attaches the file to the message of the Forum 13 (window subsequent to the function depending upon the softkey 22).

The above software application forms an integral part of the communication system of the Forum 13, in the sense that no file may be sent without prior notification in the Forum 13 of the transaction that has been made, the sender and the addressee.

The sender will be informed of the successful outcome of the transaction by the mere presence of the corresponding message within the Forum 13. If, moreover, the sender has selected in the Check box 23 the option Communicate via e-mail 24, the addressees will receive an e-mail of notification.

From the foregoing description there emerge clearly the characteristics of the system for representation and interactive management of projects and of the corresponding method, which form the subject of the present invention, as likewise emerge clearly the advantages thereof.

Finally, it is clear that numerous other variations may be made to the system and method, without thereby departing from the principles of novelty inherent in the inventive idea, as likewise it is clear that, in the practical implementation of the invention, the functions, materials, shapes and dimensions of the items illustrated may be any whatsoever according to the needs and may be replaced with other technically equivalent ones.

CLAIMS

1. A method for representation and interactive management of projects, characterized in that it comprises at least the following steps:

- recording, from remote workstations and by means of the global information network, of the development of the project;

- indexing and cataloguing of the morphological modifications of each project in time;

- transfer of files or set of files between the persons involved in the project; said files being attached to a message entered in a discussion window or Forum (13), which constitutes the agenda of each project, in such a way that it will be possible to make an analysis of the transactions that have been made and, for the user, to know at each moment the state of implementation of the project and intervene in real time on the basis of the discussions appearing in the discussion window (13) and that have taken place or have been experienced in real time.

2. The system for representation and interactive management of projects, of the type implementing the method of representation and management according to Claim 1, characterized in that it comprises:

- means for storing and recording project

developments, for the purpose of cataloguing the morphological modifications of each project in time;

- means for transfer of files between the persons involved in the project, each of said files being attached to at least one message entered in a discussion window or Forum (13) that constitutes the agenda of the project; and

- means for indicating project modifications to the other participants in the project, with which the user of the system suggests the modifications on the object/project.

3. The system for representation and management according to Claim 2, characterized in that said means for storing and recording of projects comprise time bars or segments (10) described by lines of points corresponding to a single day comprised between the end and the start of a project, and a set of first icons (11, 12), designed to contain files for immediate display of each individual project in progress, said time bars or segments (10) and said icons (11, 12) being displayable directly on the screen of a personal computer.

4. The system for representation and management of projects according to Claim 3, characterized in that it further comprises means (16) for the selection of

the individual project, means (18) for display of the transactions made and a set of second icons (14, 15) containing files received from the participants in the project and sent to the participants in the project via the management system.

5. The system for representation and management of projects according to Claim 3, characterized in that said first icons (11, 12) correspond to a Control and/or Presentation and/or data transaction and enable consultation of the files associated to the event.

6. The system for representation and management of projects according to Claim 5, characterized in that updating of the time bar or segment (10), of Control and Presentation is performed by a System Manager.

7. A method for representation and interactive management of projects according to Claim 1, characterized in that it comprises a step of verification of the communications present in the discussion window or Forum (13) regarding a pre-set day, and an step of access, on the part of enabled users, to the data contained in the files entered by the system.

8. The system for representation and management of projects according to Claim 4, characterized in that

there is available a list of participants in each specific project, accompanied by a check box (22), which is associated to sending of the messages within the window or Forum of discussion (13), for the purpose of selecting the addressees.

9. A system and method for representation and interactive management of projects, substantially as described and illustrated herein and for the purposes specified.

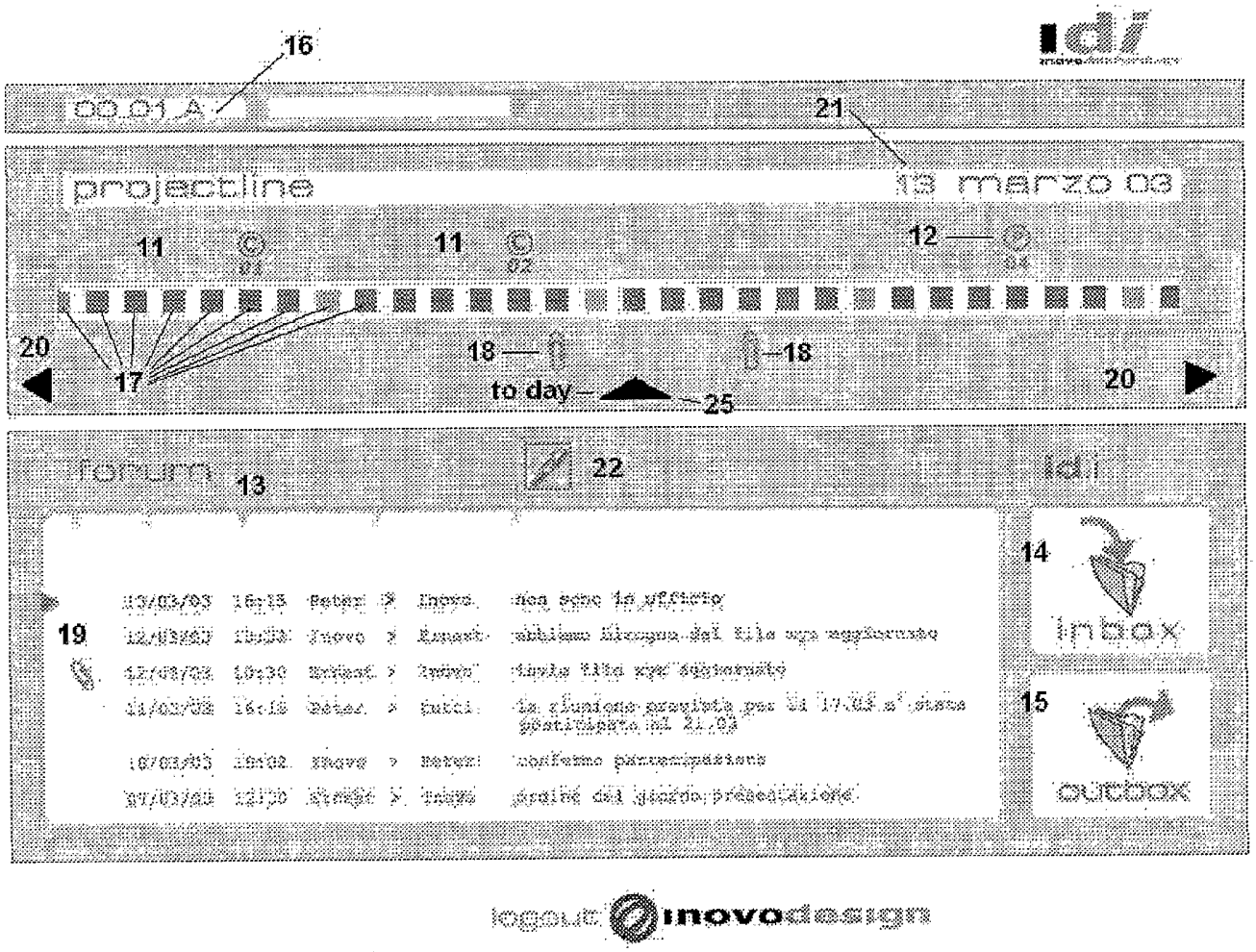

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FIG. 1

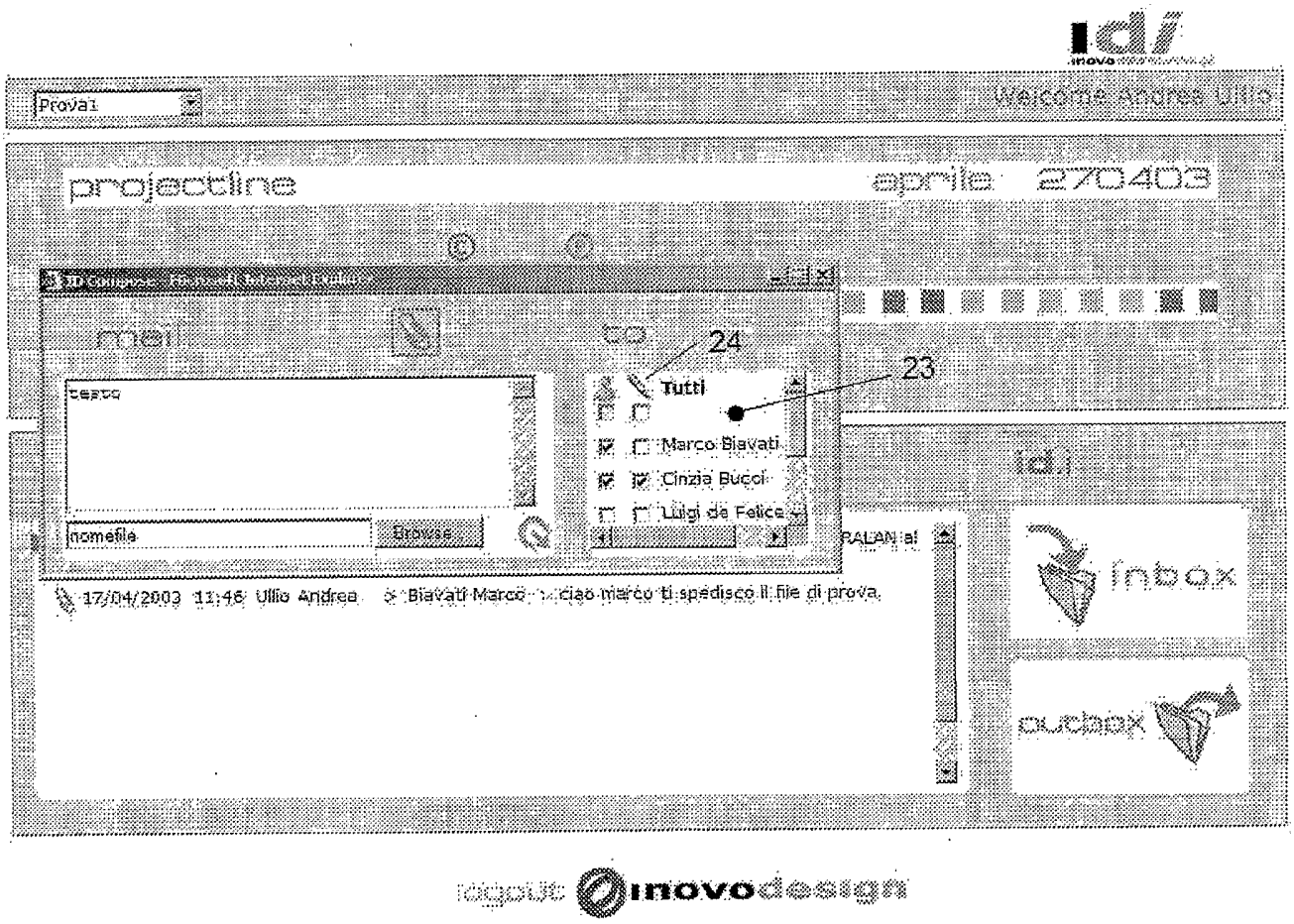

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FIG. 2

INTERNATIONAL SEARCH REPORT

International Application No
C T/IB2004/001659

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G06F17/60

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)
IPC 7 G06F

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

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

EPO-Internal, INSPEC, IBM-TDB, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MCWHERTER D., ZAYCHIK V., HAYES E., REGLI W., SEVY J.: "Software Architecture to Facilitate Automated Message Recording and Context Annotation" NETWORK INTELLIGENCE - INTERNET-BASED MANUFACTURING, 'Online! vol. 4208, 31 December 2000 (2000-12-31), pages 122-130, XP002292517 PROCEEDINGS OF SPIE Retrieved from the Internet: URL:http://spiedl.aip.org/getpdf/servlet/GetPDFServlet?filetype=pdf&id=PSISDG004208000010001220000001&idtype=cvips> 'retrieved on 2004-08-16! page 122 - page 128 ----- -/--	1-9

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in 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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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
16 August 2004	26/08/2004

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Moynihan, M

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2004/001659

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 966 512 A (BATES CARY LEE ET AL) 12 October 1999 (1999-10-12) abstract column 2, line 13 - column 2, line 48	1,2
A	US 6 029 171 A (SMIGA BRIAN ET AL) 22 February 2000 (2000-02-22) abstract claims 1-3,14 column 2, line 58 - column 3, line 14 column 5, line 23 - line 55	1

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Form PCT/ISA/210 (continuation of second sheet) (January 2004)

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2004/001659

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		EP 1008079 A2	14-06-2000
		WO 9837478 A2	27-08-1998
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