Figure 38: Document lifecycle view

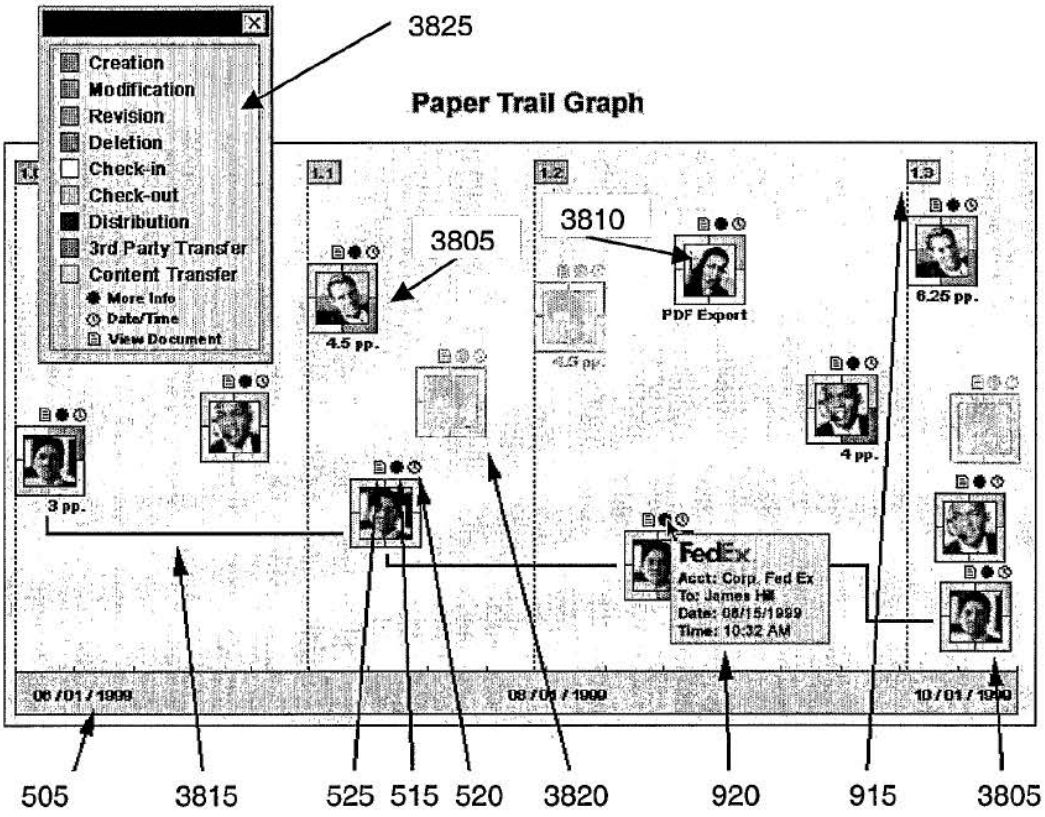
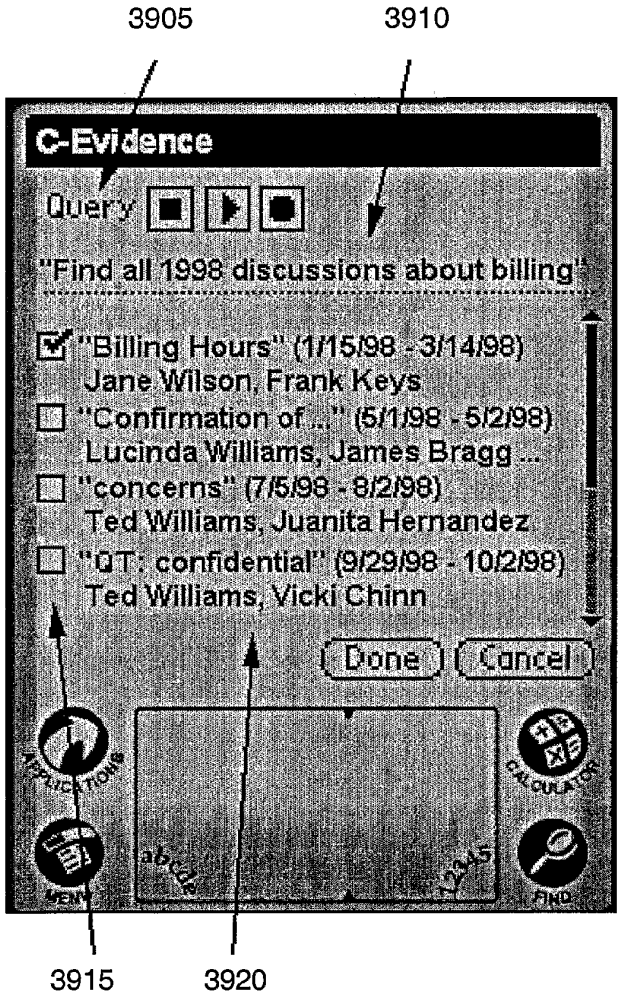
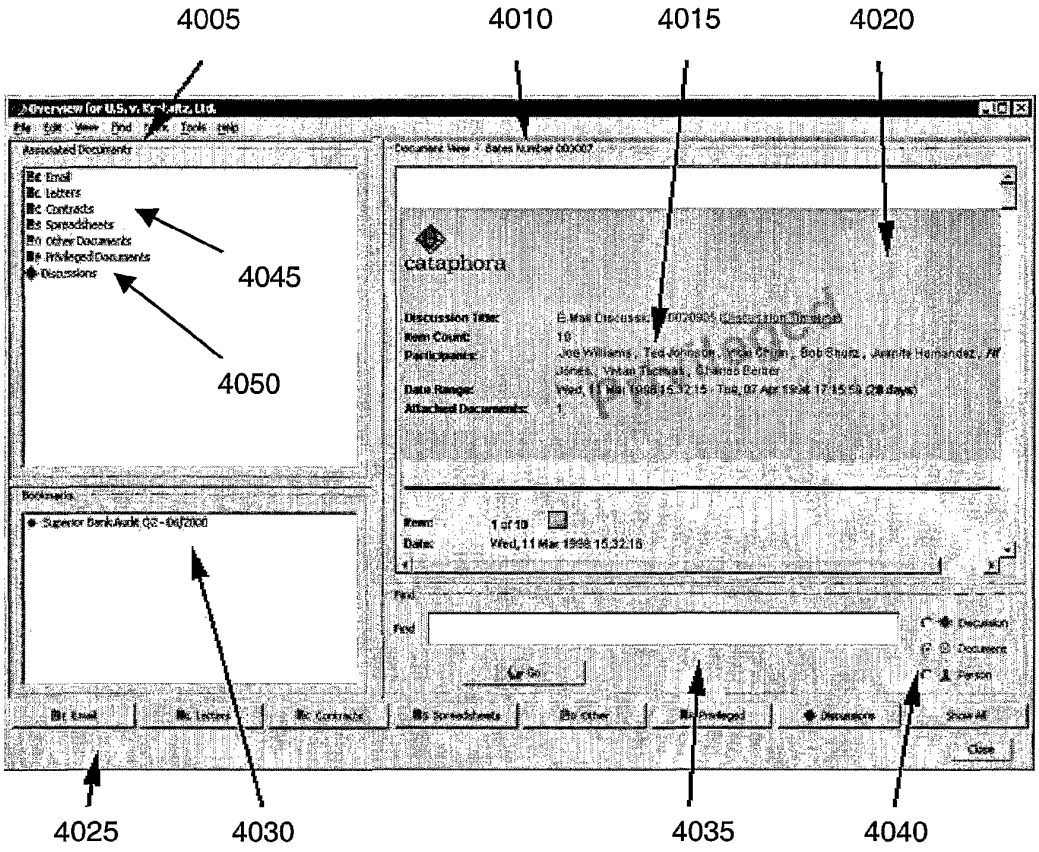


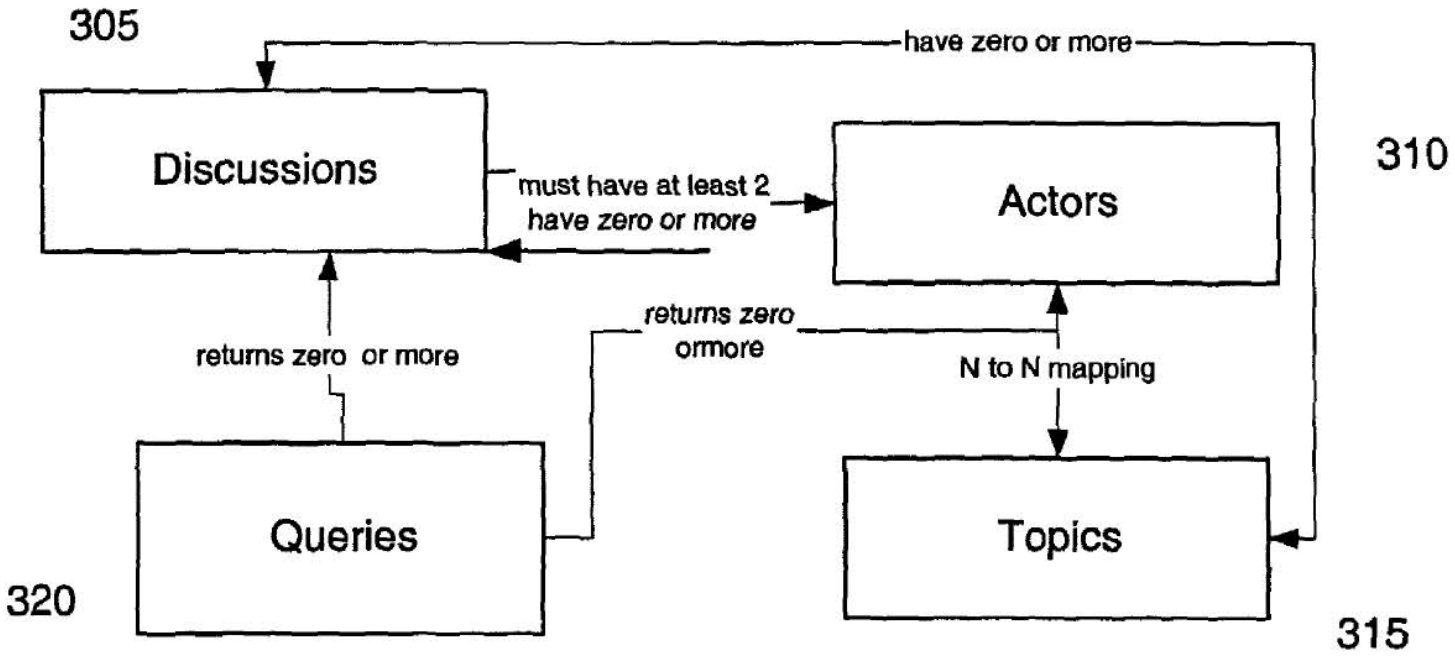
Figure 39: User interface for viewing discussions on a PalmOS-based mobile device



42 / 42

Figure 40: Case management master window view




305
have zero or more
Discussions
must have at least 2
have zero or more
Actors
310
returns zero or more
returns zero
ormore
N to N mapping
Queries
Topics
320
315

Electronic Patent Application Fee Transmittal	
Application Number:	13615419
Filing Date:	13-Sep-2012
Title of Invention:	Handheld Electronic Device and Associated Method Providing Time Data in a Messaging Environment
First Named Inventor/Applicant Name:	Gerhard D. Klassen
Filer:	Brett Joseph Slaney/Judith Martin
Attorney Docket Number:	70314/01061
Filed as Large Entity	

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
Submission- Information Disclosure Stmt	1806	1	180	180
		Total in USD ($)		**180**

Electronic Acknowledgement Receipt	
EFS ID:	16115958
Application Number:	13615419
International Application Number:	
Confirmation Number:	2640
Title of Invention:	Handheld Electronic Device and Associated Method Providing Time Data in a Messaging Environment
First Named Inventor/Applicant Name:	Gerhard D. Klassen
Customer Number:	91704
Filer:	Brett Joseph Slaney/Judith Martin
Filer Authorized By:	Brett Joseph Slaney
Attorney Docket Number:	70314/01061
Receipt Date:	21-JUN-2013
Filing Date:	13-SEP-2012
Time Stamp:	13:47:48
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$180
RAM confirmation Number	11158
Deposit Account	022553
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees) Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)	

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		11144-US-CNT5_IDS.pdf	139000 79ad5e6a906f153121456f5e222f084b727add2f	yes	3
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Transmittal Letter		1	2	
	Information Disclosure Statement (IDS) Form (SB08)		3	3	
Warnings:					
Information:					
2	Foreign Reference	11144-US-CNT5_FP1.pdf	16409558 e34de142e1b3f49cacde5aca8ca7ca2154dce1b9	no	104
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	30288 44441f1aedf0a8b84101a05f35d4290f3937c520	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	16578846		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Appl. No.:	**13/615,419**
Applicant:	**KLASSEN, Gerhard D. et al.**
Filed:	**September 13, 2012**
Title:	**Handheld Electronic Device and Associated Method Providing Time Data in a Messaging Environment**
Art Unit:	**2457**
Examiner:	**LAI, Michael C.**
Docket No.:	**70314/01061**

Mail Stop Amendment
U.S. Patent & Trademark Office
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

FIRST SUPPLEMENTAL
INFORMATION DISCLOSURE STATEMENT

Pursuant to the duty to disclose under 37 CFR §1.56, Applicant submits herewith a Form PTO/SB/08 listing references of which the Applicant is aware and which are brought to the attention of the Examiner. In accordance with 37 CFR §1.98(a)(2), a copy of each foreign patent document and non-patent reference document listed in the enclosed Form PTO/SB/08 is submitted herewith.

Pursuant to 35 USC §120, this application relies on the earlier filing date(s) of the following prior application(s):

Serial Number	Filing Date
13/111,675	May 19, 2011
10/944,925	September 20, 2004

The filing of this IDS shall not be construed as a representation that a search has been made, an admission that the information cited is, or is considered to be, material for patentability, or

that no other material information exists. This filing shall not be construed as an admission against interest in any matter.

This IDS is being submitted pursuant to 37 CFR 1.97(d).

Applicant hereby certifies that each item of information contained in the present Information Disclosure Statement was cited in a communication from a foreign Patent Office in a counterpart foreign application not more than 3 months prior to the filing of the present Information Disclosure Statement.

The fee amount prescribed under 37 CFR 1.17(p), pursuant to 37 CFR 1.97(d)(2), is to be paid by deposit account via EFS-Web. Should any additional fees be required the Office is authorized to charge Deposit Account No. **02-2553**.

Applicant respectfully requests consideration of the items listed and requests the Examiner to return a copy of the attached Form PTO/SB/08 after being marked as being considered by the Examiner.

Respectfully submitted,

Date: June 21/13

Brett J. Slaney
Registration No. **58,772**
Agent for Applicant

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(✓) encl.

22405488.1

UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/615,419	09/13/2012	Gerhard D. Klassen	70314/01061	2640

91704 7590 06/05/2013

Blake, Cassels & Graydon LLP
199 BAY STREET , SUITE 4000
COMMERCE COURT WEST
TORONTO, ON M5L 1A9
CANADA

EXAMINER	
LAI, MICHAEL C	
ART UNIT	PAPER NUMBER
2457	

NOTIFICATION DATE	DELIVERY MODE
06/05/2013	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

rimpatent@blakes.com
brett.slaney@blakes.com
portfolioprosecution@blackberry.com

Office Action Summary	Application No.	Applicant(s)	
	13/615,419	KLASSEN ET AL.	
	Examiner	Art Unit	
	MICHAEL C. LAI	2457	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 May 2013*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1-17* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-17* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to communication filed on 05/23/2013.

Response to Amendment

2. The examiner has acknowledged the amended specification and amended claims 1, 5, 8, 9, 13, and 15-17. The objections to claims 5, 8, 13, 15, and 16 have been corrected and withdrawn accordingly. The objection to the specification has been addressed and withdrawn accordingly. Claims 1-17 are pending.

Response to Arguments

3. Applicant's arguments filed on 05/23/2013 have been fully considered but they are not persuasive.

In the remarks, the applicant argues in substance that: A) Although Lapuyade shows a prompt allowing the user to select an option to change to a new time zone, it is unclear to Applicant how such a feature would suggest automatically changing time information in an instant messaging conversation. B) There is nothing to motivate a person skilled in the art to make a modification to Appelman. Consequently, at most, the two features would be used in the same device which says nothing more than in addition to displaying time stamps for instant messages, the device can also prompt a user of a new time zone.

In response to A), Appelman displaying a first time information for an instant message in the conversation in response to a first input [see at least Figs. 17-18, the display of timestamp “13:21:12”; col. 9, lines 49-67. The examiner considers

the entry of "How are you?" in Fig. 17 as the input]. Lapuyade discloses displaying time and time zone information when a change in time zone has occurred [see at least Fig. 7 and col. 6, lines 21-43]. As the user travels (i.e., time progress) from time zone 1 (first time information) to time zone 2 (second time information), displayed time is automatically changed from time zone 1 to time zone 2. Thus the combination of Appelman and Lapuyade clearly meets the limitation of "automatically changing the first time information for the instant message to a second time information as time progresses and displaying the second time information instead of the first time information" as recited in claim 1.

For B), in response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves **or in the knowledge generally available to one of ordinary skill in the art**. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, as applicant indicated that the two features would be used in the same device: in addition to displaying time stamps for instant messages, the device can also prompt a user of a new time zone. It would be well within the knowledge generally available to one of ordinary skill in the art to combine these two features to automatically

change the first time information in the first time zone for the instant message to a second time information as time progresses (i.e., cross time zone boundary) and displaying the second time information in the second time zone instead of the first time information.

Thus, in view of such, the rejection is sustained as follows:

Claim Objections

4. The following claims are objected to because of the following informalities:

Claim 9, in line 11, the term “displaying” should be “display”.

Claim 17, in line 8, the term “displaying” should be “display”.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-4, 9-12, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Appelman et al. (US 7,181,497 B1, hereinafter Appelman), in view of Lapuyade et al. (US 7,219,109 B1, hereinafter Lapuyade).

Regarding claim 1, Appelman discloses a method of displaying an instant messaging conversation on a display of an electronic device, the method comprising:

displaying a conversation of instant messages [see at least Figs. 16-17, “F>” (from) and “T>” (to) messages; col. 9, lines 23-48];

displaying a first time information for an instant message in the conversation in response to a first input [see at least Figs. 17-18, the display of timestamp “13:21:12”; col. 9, lines 49-67. The examiner considers the entry of “How are you?” in Fig. 17 as the input].

Appelman does not disclose: automatically changing the first time information for the instant message to a second time information as time progresses and displaying the second time information instead of the first time information. However, Lapuyade disclose displaying time and time zone information as a result of user input when a change in time zone has occurred [see at least Fig. 7 and col. 6, lines 21-43]. Thus it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate Lapuyade’s teaching into Appelman’s method for the purpose of alerting the user when a time zone change has occurred by confirming and displaying time information according to desired time zone, thereby providing better management of time zone information on a handheld computer [see the abstract].

Regarding claim 2, Appelman further discloses wherein the first time information comprises an absolute time [see at least Fig. 18, field 666].

Regarding claim 3, Appelman and Lapuyade disclose the claim invention including wherein the second time information further comprises additional

information [see at least Lapuyade: Fig. 2, time zone information, and col. 6, lines 21-43]. See claim 1 for motivation.

Regarding claim 4, Appelman and Lapuyade disclose the claim invention including wherein the additional information comprises an indication of a day on which the instant message was sent [see at least Lapuyade: Fig. 2, date, and col. 6, lines 21-43]. See claim 1 for motivation.

Regarding claim 9, Appelman discloses an electronic device for displaying an instant messaging conversation, the electronic device comprising:

a display; a memory; and a processor electronically coupled with the display and the memory [see e.g., Figs. 1, 2, client stations], the processor configured to:

display a conversation of instant messages [see at least Figs. 16-17, "F>" (from) and "T>" (to) messages; col. 9, lines 23-48];

display a first time information for an instant message in the conversation in response to a first input [see at least Figs. 17-18, the display of timestamp "13:21:12"; col. 9, lines 49-67. The examiner considers the entry of "How are you?" in Fig. 17 as the input].

Appelman does not disclose: automatically change the first time information for the instant message to a second time information as time progresses and displaying the second time information instead of the first time information.

However, Lapuyade disclose displaying time and time zone information as a result of user input when a change in time zone has occurred [see at least Fig. 7 and col. 6, lines 21-43]. Thus it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate Lapuyade's teaching into Appelman's method for the purpose of alerting the user when a time zone change has occurred by confirming and displaying time information according to desired time zone, thereby providing better management of time zone information on a handheld computer [see the abstract].

Regarding claim 10, Appelman further discloses wherein the first time information comprises an absolute time [see at least Fig. 18, field 666].

Regarding claim 11, Appelman and Lapuyade disclose the claim invention including wherein the second time information further comprises additional information [see at least Lapuyade: Fig. 2, time zone information, and col. 6, lines 21-43]. See claim 1 for motivation.

Regarding claim 12, Appelman and Lapuyade disclose the claim invention including wherein the additional information comprises an indication of a day on which the instant message was sent [see at least Lapuyade: Fig. 2, date, and col. 6, lines 21-43]. See claim 1 for motivation.

Regarding claim 17, Appelman discloses a non-transitory computer readable medium comprising computer executable instructions embedded thereon [see

col. 3, lines 25-38] for execution by a processor of an electronic device such that, when executed, cause the processor to:

display a conversation of instant messages [see at least Figs. 16-17, "F>" (from) and "T>" (to) messages; col. 9, lines 23-48];

display a first time information for an instant message in the conversation in response to a first input [see at least Figs. 17-18, the display of timestamp "13:21:12"; col. 9, lines 49-67. The examiner considers the entry of "How are you?" in Fig. 17 as the input].

Appelman does not disclose: automatically change the first time information for the instant message to a second time information as time progresses and displaying the second time information instead of the first time information. However, Lapuyade disclose displaying time and time zone information as a result of user input when a change in time zone has occurred [see at least Fig. 7 and col. 6, lines 21-43]. Thus it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate Lapuyade's teaching into Appelman's method for the purpose of alerting the user when a time zone change has occurred by confirming and displaying time information according to desired time zone, thereby providing better management of time zone information on a handheld computer [see the abstract].

7. Claims 5, 6, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Appelman and Lapuyade as applied to claim 1, and further in view of Mathewson, II et al. (US 7,305,441 B2, hereinafter Mathewson).

Regarding claim 5, Appelman and Lapuyade disclose the method of claim 1, but are silent about wherein at least one of the first time information and the second time information comprises a relative time. However, Mathewson teaches that alternatively, time sensitivity may be indicated in terms of elapsed time [col. 7, lines 40-47]. Thus it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate Mathewson's teaching into Appelman's and Lapuyade's method for the purpose of providing the user an expedited understanding of the time aspects of the message by displaying a relative time stamp representative of time elapsed between communication of the consecutive messages, thereby providing users greater convenience.

Regarding claim 6, Appelman, Lapuyade, and Mathewson disclose the claimed invention including wherein the second time information comprises an absolute time after expiration of a predetermined duration of time [Lapuyade: Fig. 2, time and date information, and col. 6, lines 21-43].

Regarding claim 13, Appelman and Lapuyade disclose the electronic device of claim 9, but are silent about wherein at least one of the first time information and the second time information comprises a relative time. However, Mathewson teaches that alternatively, time sensitivity may be indicated in terms

of elapsed time [col. 7, lines 40-47]. Thus it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate Mathewson's teaching into Appelman's and Lapuyade's system for the purpose of providing the user an expedited understanding of the time aspects of the message by displaying a relative time stamp representative of time elapsed between communication of the consecutive messages, thereby providing users greater convenience.

Regarding claim 14, Appelman, Lapuyade, and Mathewson disclose the claimed invention including wherein the second time information comprises an absolute time after expiration of a predetermined duration of time [Lapuyade: Fig. 2, time and date information, and col. 6, lines 21-43].

8. Claims 7, 8, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Appelman and Lapuyade as applied to claim 1, and further in view of MacPhail (US 6,636,243 B1, hereinafter MacPhail).

Regarding claim 7, Appelman and Lapuyade disclose the method of claim 1, but are silent about wherein the first time information is displayed for only a predetermined duration of time. However, MacPhail teaches a blinking is initiated upon the range crossing, and continued for a predetermined time interval, where the time interval may be set by, for example, a developer of an application using the display representation, or a viewer of the display [see Fig. 4 and col. 9, line 37 through col. 10, line 2]. Thus it would have been obvious to a person with ordinary skill in the art at the time the invention was made to

incorporate MacPhail's teaching into Appelman's and Lapuyade's method to display the first time information for only a predetermined duration of time. The motivation is to provide effective displays on devices having diverse sizes including those with small, monochrome displays and capabilities [see the abstract and col. 2, lines 53-56].

Regarding claim 8, Appelman and Lapuyade disclose the method of claim 1, but are silent about wherein at least one of the first input and the second input comprises detecting a pointing device in proximity to the instant message. However, MacPhail teaches a timestamp indicating the most recent time of a status change could be displayed only upon request by a viewer (or "user"), as illustrated in FIG. 4(b), icon 80. MacPhail further discloses by simply positioning a pointer over an icon (read as a request or an input) may be sufficient to cause display of the timestamp [see col. 10, lines 3-22]. Thus it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate MacPhail's teaching into Appelman's and Lapuyade's method for the purpose of providing displays on-demand by outputting a time stamp responsive to detecting a pointing device in proximity to the instant message, thereby providing effective displays on devices having diverse sizes including those with small, monochrome displays and capabilities [see the abstract and col. 2, lines 53-56].

Regarding claim 15, Appelman and Lapuyade disclose the electronic device claim 9, but are silent about wherein the first time information is displayed for

only a predetermined duration of time. However, MacPhail teaches a blinking is initiated upon the range crossing, and continued for a predetermined time interval, where the time interval may be set by, for example, a developer of an application using the display representation, or a viewer of the display [see Fig. 4 and col. 9, line 37 through col. 10, line 2]. Thus it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate MacPhail's teaching into Appelman's and Lapuyade's method to display the first time information for only a predetermined duration of time. The motivation is to provide effective displays on devices having diverse sizes including those with small, monochrome displays and capabilities [see the abstract and col. 2, lines 53-56].

Regarding claim 16, Appelman and Lapuyade disclose the electronic device of claim 9, but are silent about wherein at least one of the first input and second input comprises detecting a pointing device in proximity to the instant message. However, MacPhail teaches a timestamp indicating the most recent time of a status change could be displayed only upon request by a viewer (or "user"), as illustrated in FIG. 4(b), icon 80. MacPhail further discloses by simply positioning a pointer over an icon (read as a request or an input) may be sufficient to cause display of the timestamp [see col. 10, lines 3-22]. Thus it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate MacPhail's teaching into Appelman's and Lapuyade's system for the purpose of providing displays on-demand by outputting a time

stamp responsive to detecting a pointing device in proximity to the instant message, thereby providing effective displays on devices having diverse sizes including those with small, monochrome displays and capabilities [see the abstract and col. 2, lines 53-56].

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially

teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL C. LAI whose telephone number is (571)270-3236. The examiner can normally be reached on M-F 9:00 - 5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service

Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael C. Lai
Art Unit 2457
Phone: (571) 270-3236
Fax: (571) 270-4236

/ARIO ETIENNE/
Supervisory Patent Examiner, Art Unit 2457

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13615419	KLASSEN ET AL.
	Examiner	Art Unit
	MICHAEL C LAI	2457

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
709	206, 207	02/19/13	Lai
Inventor search		02/19/13	Lai

SEARCH NOTES		
Search Notes	Date	Examiner
EAST	02/19/13	Lai
EIC fast and focus search	02/20/13	Lai
EAST	05/29/13	Lai

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L16	0	(time$1stamp$1 or stamp$1) near6 (tomorrow or next adj day) near6 chang$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 10:49
L17	0	(time$1stamp$1 or stamp$1) near9 (tomorrow or next adj day) near9 chang$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 10:50
L18	0	(time$1stamp$1 or stamp$1) with (tomorrow or next adj day) with chang$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 10:50
L19	16	(time$1stamp$1 or stamp$1) near6 (tomorrow or next adj day)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 10:51
L20	3	19 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 10:51
L21	13	19 not 20	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 10:54
L22	33	(time$1stamp$1 or stamp$1) with (tomorrow or next adj day)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 10:56
L23	16589	709/206,207.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 10:56
L24	0	22 and L23	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 10:56
L25	39	(time$1stamp$1 or stamp$1) with (yesterday or previous adj day)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 10:58
L26	5	25 and L23	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 10:58
L27	13	25 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 10:59

L28	9	22 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 11:16
L29	954682	(time$1stamp$1 or time) near6 chang$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 11:21
L30	2603	23 29	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 11:21
L31	3305	(time$1stamp$1) near6 chang$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 11:22
L32	48	23 31	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 11:22
L33	10	32 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 11:23
L34	42	(time$1stamp$1) near6 chang$4 near9 display$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 11:32
L35	10	34 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 11:32
L36	0	(time$1stamp$1) with (time adj progress$4) with chang$4 with display$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 11:44
L37	1	(time$1stamp$1) with (time adj progress$4) with display$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/05/29 11:45

EAST Search History (Interference)

< This search history is empty>

5/ 29/ 2013 11:47:05 AM
C:\ Users\ mlai\ Documents\ EAST\ Workspaces\ 13111675.wsp

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13615419	KLASSEN ET AL.
	Examiner	**Art Unit**
	MICHAEL C LAI	2457

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	02/25/2013	05/29/2013							
	1	✓	✓							
	2	✓	✓							
	3	✓	✓							
	4	✓	✓							
	5	✓	✓							
	6	✓	✓							
	7	✓	✓							
	8	✓	✓							
	9	✓	✓							
	10	✓	✓							
	11	✓	✓							
	12	✓	✓							
	13	✓	✓							
	14	✓	✓							
	15	✓	✓							
	16	✓	✓							
	17	✓	✓							

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Appl. No.:	**13/615,419**
Applicant:	**KLASSEN, Gerhard D. et al.**
Filed:	**September 13, 2012**
Title:	**Handheld Electronic Device and Associated Method Providing Time Data in a Messaging Environment**
Art Unit:	**2457**
Examiner:	**LAI, Michael C.**
Docket No.:	**70314/01061**

Mail Stop Amendment
U.S. Patent & Trademark Office
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE

Sir:

This is further to the Office Action dated March 14, 2013. Applicant wishes to amend the above-identified application as follows:

Amendments to the Specification: begin on page 2 of this paper.

Amendments to the Claims: are reflected in the listing of claims which begins on page 3 of this paper.

Remarks: begin on page 6 of this paper.

Amendments to the Specification

Please replace paragraph [0001] of the application as filed with the following amended paragraph:

[0001] This application is a continuation of U.S. Patent Application No. 13/111,675 filed on May 19, 2011, now U.S. Patent No. 8,301,713; which is a continuation of U.S. Patent Application No. 10/944,925 filed on September 20, 2004, now U.S. Patent No. 7,970,849, which claims the benefit of U.S. Provisional Application No. 60/504,379 entitled filed on Sep. 19, 2003, all of which are hereby incorporated into the present application by reference.

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims:

1. (Currently amended) A method of displaying an instant messaging conversation on a display of an electronic device, the method comprising:

displaying a conversation of instant messages;

displaying a first time information for an instant message in the conversation in response to a first input; and

automatically changing the first time information for the instant message to a second time information as time progresses and displaying the second time information instead of the first time information; ~~and~~

~~displaying the second time information in response to a second input~~.

2. (Original) The method of claim 1, wherein the first time information comprises an absolute time.

3. (Original) The method of claim 2, wherein the second time information further comprises additional information.

4. (Original) The method of claim 3, wherein the additional information comprises an indication of a day on which the instant message was sent.

5. (Currently amended) The method of claim 1, wherein at least one of the first time information and the second time information comprises a relative time.

6. (Original) The method of claim 5, wherein the second time information comprises an absolute time after expiration of a predetermined duration of time.

7. (Original) The method of claim 1, wherein the first time information is displayed for only a predetermined duration of time.

8. (Currently amended) The method of claim 1, wherein at least one of the first input and the second input comprises detecting a pointing device in proximity to the instant message.

9. (Currently amended) An electronic device for displaying an instant messaging conversation, the electronic device comprising:

a display;

a memory; and

a processor electronically coupled with the display and the memory, the processor configured to:

display a conversation of instant messages;

display a first time information for an instant message in the conversation in response to a first input; and

automatically change the first time information for the instant message to a second time information as time progresses and displaying the second time information instead of the first time information; ~~and~~

~~display the second time information in response to a second input~~.

10. (Original) The electronic device of claim 9, wherein the first time information comprises an absolute time.

11. (Original) The electronic device of claim 10, wherein the second time information further comprises additional information.

12. (Original) The electronic device of claim 11, wherein the additional information comprises an indication of a day on which the instant message was sent.

13. (Currently amended) The electronic device of claim 9, wherein at least one of the first time information and the second time information comprises a relative time.

14. (Original) The electronic device of claim 13, wherein the second time information comprises an absolute time after expiration of a predetermined duration of time.

15. (Currently amended) The ~~method~~ electronic device of claim 9, wherein the first time information is displayed for only a predetermined duration of time.

16. (Currently amended) The electronic device of claim 9, wherein at least one of the first input and the second input comprises detecting a pointing device in proximity to the instant message.

17. (Currently amended) A non-transitory computer readable medium comprising computer executable instructions embedded thereon for execution by a processor of an electronic device such that, when executed, cause the processor to:

display a conversation of instant messages;

display a first time information for an instant message in the conversation in response to a first input; and

automatically change the first time information for the instant message to a second time information as time progresses and displaying the second time information instead of the first time information; ~~and~~

~~display the second time information in response to a second input~~.

REMARKS

Applicant wishes to thank the Examiner for reviewing the present application.

Specification Objection

The cross-reference section of the specification has been amended as suggested by the Examiner to identify the related applications by their respective patent numbers, thus overcoming the objection to the specification.

Applicant respectfully submits that no new subject matter has been added by way of these amendments.

Claim Amendments

Claim 1 has been amended to clarify the protection being sought by combining the final two operations and specifying that the "changing" is done automatically. Claim 1 as amended recites: "automatically changing the first time information for the instant message to a second time information as time progresses and displaying the second time information instead of the first time information". Support for this amendment can be found in at least FIG. 10 and paragraphs [0052] to [0054] of the application as filed.

Claims 5, 8, 13, and 16 have been amended as suggested by the Examiner inserting "the" where specified.

Claim 15 has been amended to correct the preamble and refer to the "electronic device" as suggested by the Examiner.

Claims 9 and 17 have been amended in a manner consistent with claim 1 as amended.

Applicant respectfully submits that no new subject matter has been added by way of these amendments.

Claim Objections

Claims 5, 8, 13, 15, and 16 have been objected to for various informalities set forth in the Office Action. As noted above, these claims have been amended as suggested by the Examiner, thus overcoming the objections.

Claim Rejections – 35 U.S.C. 103

Claims 1-4, 9-12, and 17 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Appelman (U.S. Patent No. 7,181,497) in view of Lapuyade (U.S. Patent No. 7,219,109). Claims 5, 6, 13 and 14 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Appelman and Lapuyade in further view of Mathewson (U.S. Patent No. 7,305,441). Claims 7, 8, 15 and 16 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Appelman and Lapuyade in further view of MacPhail (U.S. Patent No. 6,636,243). Applicant respectfully traverses the rejections as follows.

The present application recognizes the advantages of providing particular time information in an instant messaging application, in particular circumstances. In one aspect, it has been recognized that a given time stamp may be a "smart" time stamp and provide additional information depending upon the prevailing circumstances. For instance, if the first time stamp of FIG. 4 was output as indicated above, and if the conversation was not resumed until the following day, the first time stamp potentially could be configured to automatically change from being displayed as "2:44 pm" on the day of communication of the non-responded-to message 80 to being displayed as, for instance, "2:44 pm Thursday" or, for instance, "2:44 PM September 17, 2004" or, for instance, "2:44 pm yesterday" on the following day (see paragraph [0052] of the application as filed).

Also, such time stamps could be configured to be "active" time stamps and would change as time progressed. For instance, the time stamp could progressively change from saying "less than one minute ago" to saying "one minute ago", "two minutes ago", "forty-five minutes ago", and the like as time progressed. Such a time stamp also could be configured, for instance, to revert back to displaying an absolute time after the expiration of a given time duration. For example, once the message is one hour old, for instance, the time stamp might be configured to no longer output a relative time such as "fifty-nine minutes ago", and rather to output an absolute time such as "2:54 pm".

Claim 1 as amended clarifies this concept by reciting in part:

> "automatically changing the first time information for the instant message to a second time information as time progresses and displaying the second time information instead of the first time information" [emphasis added].

Applicant respectfully submits that none of the cited references teach or suggest such an automatic changing of time information.

Appelman teaches a messaging application user interface that has an input element for receiving electronic messages and an output element for displaying electronic messages (e.g., see FIGS. 12-31). The messaging application user interface is implemented to, among other things, maintain a subset of a plurality of potential message recipients, auto-complete a partially entered address based on the partial list of potential message recipients, and modify auto-completion behavior using user-selectable signals. Appelman shows displaying a timestamp with each message, and fails to teach or suggest changing any of these timestamps under any circumstances. There is nothing in Appelman that would provide any motivation to perform such an operation.

The Examiner acknowledges that Appelman fails to disclose: "changing the first time information for the instant message to a second time information as time progresses..." and cites Lapuyade as teaching what is missing from Appelman. Although Applicant believes that there is nothing in Appelman that would suggest such a modification, for the sake of argument, Applicant submits that Lapuyade fails to teach what is missing from Appelman.

Lapuyade teaches a time zone management system for a date book like application. Although Lapuyade shows a prompt allowing the user to select an option to change to a new time zone, it is unclear to Applicant how such a feature would suggest automatically changing time information in an instant messaging conversation.

Changing time zone information is quite different from changing time information for a message in an instant messaging conversation. Time zones change as the device moves and thus providing a prompt such as that shown in Lapuyade is understandable to enable the device to be displaying time related items according to that time zone, particularly for a date book application.

In contrast, changing time information for a message in an instant messaging conversation is entirely different from what was done in the prior art, for example, as shown in Appelman. In Appelman, a time stamp is recorded and displayed for each message. There is simply nothing that even hints at changing these time stamps, let alone as time progresses. Appelman is entirely silent in that regard.

Also, since changing a time zone for a date book application is quite different from changing time information for a message in an instant messaging conversation, there is nothing to motivate a person skilled in the art to make a modification to Appelman. Consequently, at most, the two features would be used in the same device which says nothing more than in addition to displaying time stamps for instant messages, the device can also prompt a user of a new time zone.

For at least these reasons, not only do Appelman and Lapuyade fail to teach each and every element in claim 1, there is not teaching, suggestion, or motivation to even consider the references together, let alone to modify Appelman in the way suggested by the Examiner. Accordingly,

Applicant respectfully submits that claims 1-4, 9-12, and 17 are patentable over Appelman in view of Lapuyade.

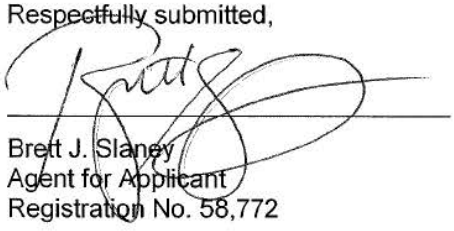
With respect to Mathewson, although Mathewson may be construed as suggesting outputting a duration of time, Applicant respectfully submits that Mathewson does not teach what is believed to be missing from Appelman and Lapuyade per the above and, as such, it is respectfully submitted that claims 5, 6, 13, and 14 are patentable over Appelman and Lapuyade, in further view of Mathewson.

With respect to MacPhail, MacPhail teaches a system in which icons representing critical indicators are displayed in superposition with a reference shape. The reference shape is divided into "higher-interest" and "lower-interest" portions such that display of an icon over the higher-interest portion of the reference shape indicates a higher-interest value of the corresponding value. Although MacPhail may suggest displaying timestamps to indicate a change in status (e.g. according to a predetermined period of time), there is nothing in MacPhail that teaches or suggests what is missing from Appelman and Lapuyade per the above and, as such, it is respectfully submitted that claims 7, 8, 15, and 16 are patentable over Appelman and Lapuyade, in further view of MacPhail.

* * *

In view of the foregoing, Applicant respectfully submits that the present application is in condition for allowance and thus requests early reconsideration and allowance of the present application.

Respectfully submitted,



Brett J. Slaney
Agent for Applicant
Registration No. 58,772

Date: May 23, 2013

BLAKE, CASSELS & GRAYDON LLP
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Suite 4000, Commerce Court West
Toronto ON M5L 1A9
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Tel: 416-863-2518
BS/

Electronic Acknowledgement Receipt	
EFS ID:	15855381
Application Number:	13615419
International Application Number:	
Confirmation Number:	2640
Title of Invention:	Handheld Electronic Device and Associated Method Providing Time Data in a Messaging Environment
First Named Inventor/Applicant Name:	Gerhard D. Klassen
Customer Number:	91704
Filer:	Brett Joseph Slaney/Judith Martin
Filer Authorized By:	Brett Joseph Slaney
Attorney Docket Number:	70314/01061
Receipt Date:	23-MAY-2013
Filing Date:	13-SEP-2012
Time Stamp:	14:52:41
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		11144-US-CNT5_OA-Response.pdf	375602 990dde6f73223c094a4178584141da277591d3e2	yes	9

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Specification	2	2
	Claims	3	5
	Applicant Arguments/Remarks Made in an Amendment	6	9
Warnings:			
Information:			
	Total Files Size (in bytes):	375602	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/615,419	09/13/2012	Gerhard D. Klassen	70314/01061	2640

91704 7590 03/14/2013

Blake, Cassels & Graydon LLP
199 BAY STREET , SUITE 4000
COMMERCE COURT WEST
TORONTO, ON M5L 1A9
CANADA

EXAMINER	
LAI, MICHAEL C	
ART UNIT	PAPER NUMBER
2457	

NOTIFICATION DATE	DELIVERY MODE
03/14/2013	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

rimpatent@blakes.com
brett.slaney@blakes.com
portfolioprosecution@blackberry.com

Office Action Summary	Application No.	Applicant(s)	
	13/615,419	KLASSEN ET AL.	
	Examiner	Art Unit	
	MICHAEL C. LAI	2457	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 September 2012*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *1-17* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-17* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☒ The specification is objected to by the Examiner.

11)☒ The drawing(s) filed on *13 September 2012* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/22/2012*.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to communication filed on 09/13/2012. Claims 1-17 have been examined.

Priority

2. This application is a continuation of U.S. Patent Application No. 13/111,675 filed on May 19, 2011, now Patent No. 8,301,713, which is a continuation of U.S. Patent Application No. 10/944,925 filed on September 20, 2004, now Patent No. 7,970,849, which claims the benefit of U.S. Provisional Application No. 60/504,379, filed on September 19, 2003.

Specification

3. The disclosure is objected to because of the following informalities: references to US Patent No. 8,301,713 and 7,970,849 should be provided in the "Cross Reference to Related Applications" section.

Claim Objections

4. The following claims are objected to because of the following informalities:

Claim 5, in lines 1-2, the term "second time information" should be "the second time information".

Claim 8, in line 1, the term "second input" should be "the second input".

Claim 13, in line 2, the term "second time information" should be "the second time information".

Claim 15, in line 1, the term "method of claim 9" should be "electronic device of claim 9".

Claim 16, in line 1, the term “second input” should be “the second input”.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-4, 9-12, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Appelman et al. (US 7,181,497 B1, hereinafter Appelman), in view of Lapuyade et al. (US 7,219,109 B1, hereinafter Lapuyade).

Regarding claim 1, Appelman discloses a method of displaying an instant messaging conversation on a display of an electronic device, the method comprising:

displaying a conversation of instant messages [see at least Figs. 16-17, “F>” (from) and “T>” (to) messages; col. 9, lines 23-48];

displaying a first time information for an instant message in the conversation in response to a first input [see at least Figs. 17-18, the display of timestamp “13:21:12”; col. 9, lines 49-67. The examiner considers the entry of “How are you?” in Fig. 17 as the input].

Appelman does not disclose: changing the first time information for the instant message to a second time information as time progresses; and displaying the second time information in response to a second input. However, Lapuyade

disclose displaying time and time zone information as a result of user input when a change in time zone has occurred [see at least Fig. 7 and col. 6, lines 21-43]. Thus it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate Lapuyade's teaching into Appelman's method for the purpose of alerting the user when a time zone change has occurred by confirming and displaying time information according to desired time zone, thereby providing better management of time zone information on a handheld computer [see the abstract].

Regarding claim 2, Appelman further discloses wherein the first time information comprises an absolute time [see at least Fig. 18, field 666].

Regarding claim 3, Appelman and Lapuyade disclose the claim invention including wherein the second time information further comprises additional information [see at least Lapuyade: Fig. 2, time zone information, and col. 6, lines 21-43]. See claim 1 for motivation.

Regarding claim 4, Appelman and Lapuyade disclose the claim invention including wherein the additional information comprises an indication of a day on which the instant message was sent [see at least Lapuyade: Fig. 2, date, and col. 6, lines 21-43]. See claim 1 for motivation.

Regarding claim 9, Appelman discloses an electronic device for displaying an instant messaging conversation, the electronic device comprising:

a display; a memory; and a processor electronically coupled with the display and the memory [see e.g., Figs. 1, 2, client stations], the processor configured to:

display a conversation of instant messages [see at least Figs. 16-17, "F>" (from) and "T>" (to) messages; col. 9, lines 23-48];

display a first time information for an instant message in the conversation in response to a first input [see at least Figs. 17-18, the display of timestamp "13:21:12"; col. 9, lines 49-67. The examiner considers the entry of "How are you?" in Fig. 17 as the input].

Appelman does not disclose: change the first time information for the instant message to a second time information as time progresses; and display the second time information in response to a second input. However, Lapuyade disclose displaying time and time zone information as a result of user input when a change in time zone has occurred [see at least Fig. 7 and col. 6, lines 21-43]. Thus it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate Lapuyade's teaching into Appelman's method for the purpose of alerting the user when a time zone change has occurred by confirming and displaying time information according to desired time zone, thereby providing better management of time zone information on a handheld computer [see the abstract].

Regarding claim 10, Appelman further discloses wherein the first time information comprises an absolute time [see at least Fig. 18, field 666].

Regarding claim 11, Appelman and Lapuyade disclose the claim invention including wherein the second time information further comprises additional information [see at least Lapuyade: Fig. 2, time zone information, and col. 6, lines 21-43]. See claim 1 for motivation.

Regarding claim 12, Appelman and Lapuyade disclose the claim invention including wherein the additional information comprises an indication of a day on which the instant message was sent [see at least Lapuyade: Fig. 2, date, and col. 6, lines 21-43]. See claim 1 for motivation.

Regarding claim 17, Appelman discloses a non-transitory computer readable medium comprising computer executable instructions embedded thereon [see col. 3, lines 25-38] for execution by a processor of an electronic device such that, when executed, cause the processor to:

display a conversation of instant messages [see at least Figs. 16-17, “F>” (from) and “T>” (to) messages; col. 9, lines 23-48];

display a first time information for an instant message in the conversation in response to a first input [see at least Figs. 17-18, the display of timestamp “13:21:12”; col. 9, lines 49-67. The examiner considers the entry of “How are you?” in Fig. 17 as the input].

Appelman does not disclose: change the first time information for the instant message to a second time information as time progresses; and display the second time information in response to a second input. However, Lapuyade disclose displaying time and time zone information as a result of user input when a change in time zone has occurred [see at least Fig. 7 and col. 6, lines 21-43]. Thus it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate Lapuyade's teaching into Appelman's method for the purpose of alerting the user when a time zone change has occurred by confirming and displaying time information according to desired time zone, thereby providing better management of time zone information on a handheld computer [see the abstract].

7. Claims 5, 6, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Appelman and Lapuyade as applied to claim 1, and further in view of Mathewson, II et al. (US 7,305,441 B2, hereinafter Mathewson).

Regarding claim 5, Appelman and Lapuyade disclose the method of claim 1, but are silent about wherein at least one of the first time information and second time information comprises a relative time. However, Mathewson teaches that alternatively, time sensitivity may be indicated in terms of elapsed time [col. 7, lines 40-47]. Thus it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate Mathewson's teaching into Appelman's and Lapuyade's method for the purpose of providing the user an expedited understanding of the time aspects of the message by displaying a

relative time stamp representative of time elapsed between communication of the consecutive messages, thereby providing users greater convenience.

Regarding claim 6, Appelman, Lapuyade, and Mathewson disclose the claimed invention including wherein the second time information comprises an absolute time after expiration of a predetermined duration of time [Lapuyade: Fig. 2, time and date information, and col. 6, lines 21-43].

Regarding claim 13, Appelman and Lapuyade disclose the electronic device of claim 9, but are silent about wherein at least one of the first time information and second time information comprises a relative time. However, Mathewson teaches that alternatively, time sensitivity may be indicated in terms of elapsed time [col. 7, lines 40-47]. Thus it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate Mathewson's teaching into Appelman's and Lapuyade's system for the purpose of providing the user an expedited understanding of the time aspects of the message by displaying a relative time stamp representative of time elapsed between communication of the consecutive messages, thereby providing users greater convenience.

Regarding claim 14, Appelman, Lapuyade, and Mathewson disclose the claimed invention including wherein the second time information comprises an absolute time after expiration of a predetermined duration of time [Lapuyade: Fig. 2, time and date information, and col. 6, lines 21-43].

8. Claims 7, 8, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Appelman and Lapuyade as applied to claim 1, and further in view of MacPhail (US 6,636,243 B1, hereinafter MacPhail).

Regarding claim 7, Appelman and Lapuyade disclose the method of claim 1, but are silent about wherein the first time information is displayed for only a predetermined duration of time. However, MacPhail teaches a blinking is initiated upon the range crossing, and continued for a predetermined time interval, where the time interval may be set by, for example, a developer of an application using the display representation, or a viewer of the display [see Fig. 4 and col. 9, line 37 through col. 10, line 2]. Thus it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate MacPhail's teaching into Appelman's and Lapuyade's method to display the first time information for only a predetermined duration of time. The motivation is to provide effective displays on devices having diverse sizes including those with small, monochrome displays and capabilities [see the abstract and col. 2, lines 53-56].

Regarding claim 8, Appelman and Lapuyade disclose the method of claim 1, but are silent about wherein at least one of the first input and second input comprises detecting a pointing device in proximity to the instant message. However, MacPhail teaches a timestamp indicating the most recent time of a status change could be displayed only upon request by a viewer (or "user"), as illustrated in FIG. 4(b), icon 80. MacPhail further discloses by simply positioning

a pointer over an icon (read as a request or an input) may be sufficient to cause display of the timestamp [see col. 10, lines 3-22]. Thus it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate MacPhail's teaching into Appelman's and Lapuyade's method for the purpose of providing displays on-demand by outputting a time stamp responsive to detecting a pointing device in proximity to the instant message, thereby providing effective displays on devices having diverse sizes including those with small, monochrome displays and capabilities [see the abstract and col. 2, lines 53-56].

Regarding claim 15, Appelman and Lapuyade disclose the electronic device claim 9, but are silent about wherein the first time information is displayed for only a predetermined duration of time. However, MacPhail teaches a blinking is initiated upon the range crossing, and continued for a predetermined time interval, where the time interval may be set by, for example, a developer of an application using the display representation, or a viewer of the display [see Fig. 4 and col. 9, line 37 through col. 10, line 2]. Thus it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate MacPhail's teaching into Appelman's and Lapuyade's method to display the first time information for only a predetermined duration of time. The motivation is to provide effective displays on devices having diverse sizes including those with small, monochrome displays and capabilities [see the abstract and col. 2, lines 53-56].

Regarding claim 16, Appelman and Lapuyade disclose the electronic device of claim 9, but are silent about wherein at least one of the first input and second input comprises detecting a pointing device in proximity to the instant message. However, MacPhail teaches a timestamp indicating the most recent time of a status change could be displayed only upon request by a viewer (or "user"), as illustrated in FIG. 4(b), icon 80. MacPhail further discloses by simply positioning a pointer over an icon (read as a request or an input) may be sufficient to cause display of the timestamp [see col. 10, lines 3-22]. Thus it would have been obvious to a person with ordinary skill in the art at the time the invention was made to incorporate MacPhail's teaching into Appelman's and Lapuyade's system for the purpose of providing displays on-demand by outputting a time stamp responsive to detecting a pointing device in proximity to the instant message, thereby providing effective displays on devices having diverse sizes including those with small, monochrome displays and capabilities [see the abstract and col. 2, lines 53-56].

Conclusion

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially

teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Lai whose telephone number is (571) 270-3236. The examiner can normally be reached on M-F 8:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service

Representative or access to the automated information system, call 800-786-

9199 (IN USA OR CANADA) or 571-272-1000.

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/MICHAEL C LAI/

Examiner, Art Unit 2457

Notice of References Cited	Application/Control No. 13/615,419	Applicant(s)/Patent Under Reexamination KLASSEN ET AL.	
	Examiner MICHAEL C. LAI	Art Unit 2457	Page 1 of 2

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2002/0147135 A1	10-2002	Schnell, Oliver	514/3
*	B	US-2003/0001890 A1	01-2003	Brin, Glen David	345/753
*	C	US-2003/0104841 A1	06-2003	Yamamoto, Katsuaki	455/566
*	D	US-6,603,389 B1	08-2003	Murray, Bradley A.	340/7.2
*	E	US-2004/0205775 A1	10-2004	Heikes et al.	719/318
*	F	US-2005/0080866 A1	04-2005	Kent et al.	709/207
*	G	US-6,889,063 B2	05-2005	Yamada, Hironori	455/567
*	H	US-2005/0165543 A1	07-2005	Yokota, Tatsuo	701/204
*	I	US-7,099,700 B2	08-2006	Hwang et al.	455/566
*	J	US-7,111,044 B2	09-2006	Lee, Jin Woo	709/204
*	K	US-7,181,497 B1	02-2007	Appelman et al.	709/206
*	L	US-7,219,109 B1	05-2007	Lapuyade et al.	719/318
*	M	US-7,305,441 B2	12-2007	Mathewson et al.	709/206

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
*	N	GB 2350746 A	12-2000	United Kingdom	NOBUKIYO, TAKAHIRO	H04L 12/54
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Notice of References Cited	Application/Control No. 13/615,419	Applicant(s)/Patent Under Reexamination KLASSEN ET AL.	
	Examiner MICHAEL C. LAI	Art Unit 2457	Page 2 of 2

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-7,349,947 B1	03-2008	Slage et al.	709/217
*	B	US-6,636,243	10-2003	MacPhail, Margaret Gardner	715/772
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13615419	KLASSEN ET AL.
	Examiner	Art Unit
	MICHAEL C LAI	2457

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
709	206, 207	02/19/13	Lai
Inventor search		02/19/13	Lai

SEARCH NOTES		
Search Notes	Date	Examiner
EAST	02/19/13	Lai
EIC fast and focus search	02/20/13	Lai

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

NPL 13615419

11/5/1 (Item 1 from file: 8)
DIALOG(R)File 8: Ei Compendex(R)

0015298202 **E.I. COMPENDEX No:** 2002497253603
Internet-based collaboration system: Press-die design process for automobile manufacturer

Kong, S.H.; Noh, S.D.; Han, Y.-G.; Kim, G.; Lee, K.I.
Corresp. Author/Affil: Kong, S.H.: Automatic Control Research Centre, Seoul National University, San 56-1, Shinlim-dong, Kwanak-ku, Seoul 151-742, Korea, Republic of
Corresp. Author email: silkysix@snu.ac.kr
International Journal of Advanced Manufacturing Technology (Int J Adv Manuf Technol) **(** United Kingdom) 2002 20/9 (701-708)
Publication Date: 20021203
Publisher: Springer-Verlag London Ltd
CODEN: IJATE **ISSN:** 0268-3768
Item Identifier (DOI): 10.1007/s001700200209
Document Type: Article; Journal **Record Type:** Abstract
Treatment: T; (Theoretical)
Language: English **Summary Language:** English
Number of References: 11
To survive in a severe competitive environment, manufacturing enterprises must accomplish objectives such as cost **reduction**, quality **improvement** and short **time**-to-**market**. Also, as the manufacturing environment becomes more globalised and distributed, it is important to manage the workflow harmoniously and to share the information efficiently among geographically dispersed users. In this research, we propose a collaborative design and engineering system, which manages various design processes in an integrated manner and enables the sharing of design information. Because design **information** is usually very**large** in its size, it is very difficult to synchronise the individual design data of each designer with the entire design data. As a solution for efficient data sharing among the designers in networks, CORBA can be applied to synchronise the states of the design information. If one user modifies design data on his/her computer, this operation is detected and transmitted to other users who are related with the design modification. A receiver's computer automatically synchronises its data with the sender's**message**. In this paper, an Internet-based collaboration system for a press-die design process for automobile manufacturers is developed with CORBA, Java, Java3D and a relational database system. After modelling a practical press-die design process with the UML language, workflow routing paths are created by the modelling data. Cost and time for design can be estimated by the concurrent quasi-procedural method. The system developed can notify design modification to users when it is required, and enables users to share design models and

analysis results. Designers can exchange opinions about common design matters by the conferencing function of the system.
Descriptors: Computer aided design; Computer programming languages; Dies; Information science; Internet; Presses (machine tools); *Automobile manufacture
Identifiers: Design information
Classification Codes:
723.1.1 (Computer Programming Languages)
723.5 (Computer Applications)
662.1 (Automobiles)
603.1 (Machine Tools, General)
534.1 (Foundries)
603.2 (Machine Tool Accessories)
723 (Computer Software, Data Handling & Applications)
903 (Information Science)

11/5/2 (Item 1 from file: 2)
DIALOG(R)File 2: INSPEC

08959834
Title: Efficient causality-tracking timestamping
Author(s): Helary, J.-M.[1]; Raynal, M.[1]; Melideo, G.; Baldoni, R.
Affiliation(s):
[1] IRISA, Rennes, France
Journal: IEEE Transactions on Knowledge and Data Engineering , vol.15 , no.5 , pp.1239-50
Publisher: IEEE
Country of Publication: USA
Publication Date: Sept.-Oct. 2003
ISSN: 1041-4347
ISSN Type: print
SICI: 1041-4347(200309/10)15:5L.1239:ECTT;1-9
CODEN: ITKEEH
U.S. Copyright Clearance Center Code: 1041-4347/03/$17.00
Item Identifier (DOI): 10.1109/TKDE.2003.1232275
Language: English
Document Type: Journal Paper (JP)
Treatment: Practical (P); Theoretical or Mathematical (T)
Abstract: Vector clocks are the appropriate mechanism used to track causality among the events produced by a distributed computation. Traditional implementations of vector clocks require application **messages** to piggyback a vector of n integers (where n is the number of processes). This paper investigates the tracking of the causality relation on a subset of events (namely, the events that are defined as "relevant" from the application point of view) in a context where communication channels are not required to be FIFO, and where there is no a priori information on the connectivity of the communication

graph or the communication pattern. **More specifically**, the paper proposes a suite of simple and efficient implementations of vector clocks that address the **reduction** of the size of **message timestamps**, i.e., they do their best to have **message** timestamps whose size is less than n. The relevance of such a suite of protocols is twofold. From a practical side, it constitutes the core of an adaptive timestamping software layer that can used by underlying applications. From a theoretical side, it provides a comprehensive view that helps better understand distributed causality-tracking mechanisms. (*20 refs.*)
Subfile(s): C (Computing & Control Engineering)
Descriptors: **clocks**; concurrency theory; distributed programming; **message passing**
Identifiers: causality-tracking timestamping; vector clocks; distributed computation; application **messages**; causality relation; communication channels; FIFO; communication graph; communication pattern; **message** timestamps; adaptive timestamping software layer; distributed causality-tracking mechanisms; asynchronous distributed computation; **message**-passing
Classification Codes: C6150N (Distributed systems software); C4240P (Parallel programming and algorithm theory)
International Patent Classification:
G06F-0001/04 (Generating or distributing clock signals or signals derived directly therefrom)
INSPEC Update Issue: 2004-019

11/5/3 (Item 2 from file: 2)
DIALOG(R)File 2: INSPEC

06021072
Title: Selective specialization for object-oriented languages
Author(s): Dean, J.[1]; Chambers, C.[1]; Grove, D.[1]
Affiliation(s):
[1] Dept. of Comput. Sci. & Eng., Washington Univ., Seattle, WA, USA
Journal: SIGPLAN Notices , vol.30 , no.6 , pp.93-102
Country of Publication: USA
Publication Date: June 1995
Conference Title: ACM SIGPLAN '95 Conference on Programming Language Design and Implementation (PLDI)
Conference Date: 18-21 June 1995
Conference Location: La Jolla, CA, USA
Conference Sponsor: ACM
ISSN: 0362-1340
ISSN Type: print
SICI: 0362-1340(199506)30:6L.93:SSOO;1-W

CODEN: SINODQ
Language: English
Document Type: Conference Paper in Journal (PA)
Treatment: Theoretical or Mathematical (T)
Abstract: Dynamic dispatching is a major source of run-time overhead in object-oriented languages, due both to the direct cost of method lookup and to the indirect effect of preventing other optimizations. To reduce this overhead, optimizing compilers for object-oriented languages analyze the classes of objects stored in program variables, with the goal of bounding the possible classes of **message** receivers enough so that the compiler can uniquely determine the target of a **message** send at compile time and replace the **message** send with a direct procedure call. Specialization is one important technique for improving the precision of this static class information: by compiling multiple versions of a method, each applicable to a subset of the possible argument classes of the method, **more** precise static **information** about the classes of the method's arguments is obtained. Previous specialization strategies have not been selective about where this technique is applied, and therefore tended to significantly **increase** compile **time** and **code** space usage, particularly for large applications. We present a **more** general framework for specialization in **object**-oriented languages and describe a goal-directed specialization algorithm that makes selective decisions to apply specialization to those cases where it provides the highest benefit. Our results show that our algorithm improves the performance of a group of sizeable programs by 65% to 275% while increasing compiled code space requirements by only 4% to 10%. Moreover, when compared to the previous state-of-the-art specialization scheme, our algorithm improves performance by 11% to 67% while simultaneously reducing code space requirements by 65% to 73%. (*26 refs.*)
Subfile(s): C (Computing & Control Engineering)
Descriptors: abstract data types; **message** passing; object-oriented languages ; object-oriented programming; optimising compilers; system monitoring
Identifiers: object-oriented languages; selective specialization; goal-directed specialization algorithm; selective decisions; program performance; compiled code space requirements; dynamic dispatching; run-time overhead; method lookup; optimizations; optimizing compilers; object classes; program variables; **message** receivers; **message** send; direct procedure call; static class information; multiple versions; static information
Classification Codes: C6110J (Object-oriented programming); C6140D (High level languages); C6150C (Compilers, interpreters and other processors); C6120 (File organisation); C6150G (Diagnostic, testing, debugging and evaluating systems)
International Patent Classification:
G06F-0009/44 (Arrangements for executing specific programmes)
G06F-0009/45 (Compilation or interpretation of high level programme languages)
G06F-0011/36 (Preventing errors by testing or debugging of software)
G06F-0012/00 (Accessing, addressing or allocating within memory systems or architectures)
INSPEC Update Issue: 1995-031

11/5/4 (Item 1 from file: 95)
DIALOG(R)File 95: TEMA-TECHNOLOGY & MANAGEMENT

01933748 20050202262
Model based development environment at Siemens VDO Automotive AG division powertrain

(Modellbasierte Entwicklungsumgebung in der Powertrain-Division der Siemens VDO Automotive AG)
Kunze, Marco; Reuther, Achim
IAC 2004, 4. Internat. Automotive Conf., Users of the MATLAB product family present: Pioneering Design Methods in the Automotive Industry, Stuttgart, DE, Jun 15-16, 2004 , 2004
Document type: Conference paper **Language:** English
Record type: Abstract
ISBN: 3-8322-2872-1

Abstract:
With this paper the model based development environment based on Matlab / Simulink / Stateflow as used at Siemens VDO Automotive AG, Division Powertrain has been presented. The introduction of the model based development environment at SV P has been motivated by 3 topics: **Reduction** of **development** cycles and **time** to **market**; Possibility of enhanced documentation; Usage of modelling techniques in general. Using an executable specification with PC based simulation an early testing of the controller strategies without the necessity of manual coding is possible. This decreases the number of development loops between function **specification** and software coding. **Additionally** the executable **specification** in form of a Simulink model can be used as basis for real time simulation on the Rapid Prototyping Unit or for early validation directly in the car. Finally the model can also be used as basis for Automatic Coding and by this reduces the coding effort. Based on the interfaces given by the software development in the Automotive Industry the basic concepts have been discussed. SV P uses a generic and XML-based interface to the Configuration Management that is independent of the proprietary CM system. Together with the introduction of a defined architecture of the executable Simulink model, and the system scheduler, a kind of simulated operating system, a generic solution for a multi-user & multi-project development environment for Matlab/Simulink/Stateflow is available. The development environment allows to easily integrating the working results of different developers with clearly defined and documented execution order. The used concept for model based documentation was presented, including the separation between functional content and **textual** description. Finally, the identified requirements for the next releases of Simulink have been addressed.

Descriptors: CASE ENVIRONMENT; ELECTRIC CONTROLLERS; ELECTRONIC CONTROL; VEHICLE DRIVES; AUTOMOBILE ELECTRONICS; MODEL SIMULATION; PROGRAM DEVELOPMENT; COMPUTER AIDED SOFTWARE ENGINEERING; COMPUTER MODELLING; SIMULATION MODELLING; SOFTWARE TECHNIQUE; SUPPLIER
Identifiers: Antriebselektronik; modellbasierte Entwicklungsumgebung; Autocode

11/5/5 (Item 1 from file: 60)
DIALOG(R)File 60: ANTE: Abstracts in New Tech & Engineer

0004363979 IP Accession No: 201115107777
Coding over space and time for wireless systems

Brink, S.T.
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Abstract:
In wireless communications, channel coding is used to combat impairments such as noise or fading. Redundant **information** is**added** at the transmitter, to enable reliable detection and decoding of the **message** at the receiver. With the advent of multiple-antenna techniques, coding for the wireless channel has become an attractive topic of research. Several original schemes have been devised over the past decade that benefit particularly well from the added spatial dimension: clever space-time diversity mappings, coined "space-**time coding**," **increase** the reliability of the wireless link, while "spatial multiplexing" and its corresponding demultiplexing and detection algorithms achieve **high data** rates at unprecedented spectral efficiencies. The combination of channel coding with numerous variations and mixtures of the above poses interesting design challenges. In this article we, admittedly, take a more channel-coding-centric view of a wireless communication link, and outline the current state of the art as well as future trends in coding over space and time

Descriptors: Algorithms; Channels; Coding; Demultiplexing; Fading; Impairment; Links; Wireless communication

11/5/6 (Item 2 from file: 60)
DIALOG(R)File 60: ANTE: Abstracts in New Tech & Engineer

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Method and system for prevention of network denial-of-service attacks

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, USA
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Document Type: Patent
Record Type: Abstract
Language: English
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Abstract:
An approach for preventing denial-of-service attacks on Secure Sockets Layer ('SSL') protocol is described. Queues are generated for handshake state connections and data transmission connections. A connection object representing a new SSL connection is time-stamped as it enters the handshake portion of the SSL protocol. A connection pointer to the connection object is placed at the head of the handshake queue. As new SSL **messages** are transferred between client and SSL server, the **time-stamp** is **updated** when the entire **message** is received, the connection pointer is repositioned to the head of the queue. A timer event periodically surveys the queues. If connection packet transmission gaps remain below a specified maximum handshake gap **time**, a connection is allowed to **progress** to the **data** transmission state. If any connection **exceeds**the **specified** gap **time**, the SSL connection is dropped.

Descriptors: Joints; Queues; **Messages**; Data transmission; Timing devices; Sockets ; Packet transmission; United States; Servers; Gaps; Networks; Surveys

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Appl. No.: **10/152,541**

Filed: **May 20, 2002**

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	1	WO 01/30091	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/20 11:53
S2	3	WO "0130091"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/20 12:18
S3	5	"6603389"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/20 12:22
S4	1	GB "0228076"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/20 12:44
S5	5	GB "2384150"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/20 12:45
S6	1	EP "0743762"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/20 13:05
S7	2	"20030104841"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/20 13:16
S8	3	"20030060240"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/20 13:24
S9	35	"6727930" "6721651"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/07/20 13:29
S10	12571	709/206,207.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/29 10:50

S11	11361	709/206.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/29 10:50
S12	2238	709/207.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/29 10:50
S13	1028	S11 S12	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/29 10:50
S14	5822	time$1stamp$4 with (expir$5 or duration or period)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/29 11:19
S15	478751	(without or no or interrupt$4 or discontinu$4 or disconnnect$4) with (communication or conversation or chat$4 or messag$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/29 11:21
S16	162	S14 same S15	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/29 11:22
S17	95	S14 with S15	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/29 11:22
S18	3	S10 S17	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/29 11:22
S19	11	S10 S16	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/29 11:31
S20	8	S19 not S18	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/29 11:31
S21	1	S20 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/29 11:32
S22	718	(interrupt$4 or discontinu$4) with (IM or instant adj1 messag$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/29 11:50

S23	0	S14 same S22	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/29 11:50
S24	1	S14 S22	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2011/07/29 11:50
S25	15	"7181497" "6889063"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2011/07/29 13:04
S26	41	"7111044" "7099700" "7305441"	US-PGPUB; USPAT	OR	OFF	2011/07/29 18:32
S27	12343	(time or time$1stamp$4) with (display$4 or output$4) with (expir$5 or duration or period) with timer	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 10:18
S28	1528	(time or time$1stamp$4) with (display$4 or output$4) with (expir$5) with timer	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 10:19
S29	3	(time$1stamp$4) with (display$4 or output$4) with (expir$5) with timer	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 10:20
S30	2	(time$1stamp$4) near3 (display$4 or output$4) with timer near2(expir$5)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 10:40
S31	205	(time or time$1stamp$4) near3 (display$4 or output$4) with timer near2 (expir$5)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 10:41
S32	2	(time$1stamp$4) near3 (display$4 or output$4) with timer near2 (expir$5)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 10:41
S33	77	S31 messag$4 (mobile or pda or cellular or phone)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 10:43
S34	46	S31 messag$4 same (mobile or pda or cellular or phone)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 10:43
S35	5	S34 @ad < "20030919"	US-PGPUB; USPAT; EPO;	AND	OFF	2012/01/23 10:44

			JPO; DERWENT; IBM_TDB			
S36	205	(time or time$1stamp$4) near3 (display$4 or output$4) with timer near2 (expir$5)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:15
S37	77	S36 messag$4 (mobile or pda or cellular or phone)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:15
S38	11	S37 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:15
S39	11	S38 not "s36"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:15
S40	116	(time or time$1stamp$4) near3 (display$4 or output$4) with timer adj2 (expir$5)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:21
S41	33	S37 S40	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:22
S42	7	S41 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:22
S43	0	S42 not S39	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:22
S44	59	S40 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:23
S45	52	S44 not S39	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:24
S46	22	S40 same messag$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:30
S47	7	S46 @ad < "20030919"	US-PGPUB; USPAT; EPO;	AND	OFF	2012/01/23 12:31

			JPO; DERWENT; IBM_TDB			
S48	5	S47 not S39	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:31
S49	67	(time or time$1stamp$4) adj3 (display$4 or output$4) with timer adj2 (expir$5)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:33
S50	16	S49 same messag$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:34
S51	5	S50 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:34
S52	6	(time or time$1stamp$4) adj3 (display$4 or output$4) adj3 timer adj2 (expir$5)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:35
S53	2	S52 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:36
S54	14	timer adj2 (expir$5) adj4 (time or time$1stamp$4) adj3 (display$4 or output$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:37
S55	10	S54 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:37
S56	21	timer adj4 (expir$5) adj6 (time or time$1stamp$4) adj3 (display$4 or output$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:42
S57	15	S56 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:42
S58	5	S57 not S55	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 12:43
S59	1	10/685626.app.	US-PGPUB; USPAT; EPO;	AND	OFF	2012/01/23 18:14

			JPO; DERWENT; IBM_TDB			
S60	5	"6021313"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 18:28
S61	28	"5786805"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 18:47
S62	721	time$4 adj1 out adj6 (time or time$1stamp$4) near3 (display$4 or output$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 18:51
S63	432	S62 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 18:51
S64	18	S63 (messag$4 same (mobile or pda or cellular or phone))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 18:53
S65	0	time$4 adj1 out adj6 (time$1stamp$4) near3 (display$4 or output$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 20:00
S66	1987	(time$1stamp$4) near3 (display$4 or output$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 20:01
S67	94840	(timer adj2 expir$5) or time$1out	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 20:03
S68	15	S66 same S67	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 20:03
S69	2	S66 with S67	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 20:03
S70	1	S68 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 20:04
S71	12537	(after or when) adj4 ((timer adj2 expir$5) or time$1out)	US-PGPUB; USPAT; EPO;	AND	OFF	2012/01/23 20:14

			JPO; DERWENT; IBM_TDB			
S72	31	S66 S71	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 20:14
S73	0	S66 with S71	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 20:14
S74	0	S66 same S71	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 20:14
S75	653211	(time or time$1stamp$4) near3 (display$4 or output$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 20:15
S76	2351	S71 S75	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 20:15
S77	208	S71 same S75	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 20:15
S78	98	S71 with S75	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 20:15
S79	44	S78 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/01/23 20:16
S80	3	"20030001890"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/06/04 17:17
S81	1	"7970849"	USPAT	OR	OFF	2012/06/20 19:34
S82	5911	709/204.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/06/20 19:46
S83	872	715/772.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/06/20 19:47

S84	6196	455/566,567.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/06/20 19:48
S85	57912	(time time$1stamp$4) with (stylus cursor (pointing adj1 device$1) (user adj1 input))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/06/20 20:03
S86	777	(interrupt$4 or discontinu$4) with (IM or instant adj1 messag$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/06/20 20:04
S87	58	S85 and S86	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/06/20 20:04
S88	14475	709/206,207.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/06/20 20:05
S89	26302	S82 S83 S84 S88	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/06/20 20:05
S90	10	S87 and S89	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2012/06/20 20:05
S91	2	S90 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/06/20 20:05
S98	15313	709/206,207.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/10/31 12:15
S99	9	"8301713"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/10/31 12:15
S100	3	"20040205775"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/10/31 14:36
S101	15313	709/206,207.ccls.	US-PGPUB;	AND	OFF	2012/10/31

			USPAT; EPO; JPO; DERWENT; IBM_TDB			16:24
S102	7187	time$1stamp$4 with (expir$5 or duration or period)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/10/31 16:24
S103	548873	(without or no or interrupt$4 or discontinu$4 or disconnnect$4) with (communication or conversation or chat$4 or messag$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/10/31 16:24
S104	107	S102 with S103	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/10/31 16:24
S105	6	S101 S104	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2012/10/31 16:24
S106	66	S104 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/10/31 16:31
S107	65	S106 not S105	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/10/31 16:32
S108	206	(varied depend$4) with (frequency (how adj often)) with (duration period) with (conversation communication)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2012/10/31 16:49
S109	23	(varied depend$4) with (frequency (how adj often)) with (duration period) with (conversation communication) with message$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2012/10/31 16:49
S110	5	S109 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/10/31 16:50
S111	8	GB "2350746"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2012/10/31 17:27
S112	11	"7236472"	USPAT	OR	OFF	2013/01/10 11:17
S113	42	EP "1176840"	US-PGPUB; USPAT; EPO; JPO; DERWENT;	AND	OFF	2013/01/10 11:23

			IBM_TDB			
S114	2	JP "200311145"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/01/10 11:45
S115	17	time$1stamp with ((infrequent or frequency) near3 (message or conversation or chat))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/01/10 12:58
S116	11	time$1stamp with ((infrequent or frequency) near3 (message or conversation or chat)) with (duration or time)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/01/10 12:59
S117	0	S116 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/01/10 12:59
S118	0	S115 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/01/10 13:00
S119	0	time$1stamp$1 same ((infrequent or frequency) adj3 ((instant adj messag$4) or conversation or chat)) with (duration or time)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/01/10 13:09
S120	58	((infrequent or frequency) adj3 ((instant adj messag$4) or conversation or chat)) with (duration or time)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/01/10 13:09
S121	27	S120 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/01/10 13:10
S122	4	time$1stamp$1 S121	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/01/10 13:10
S123	24	(varied depend$4) with (frequency (how adj often)) with (duration period) with (conversation communication) with message$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/01/10 13:17
S124	0	(varied or depend$4) adj3 ((frequency) adj3 ((instant adj messag$4) or conversation or chat))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/01/10 13:34
S125	15	(varied or depend$4) same ((frequency) adj3 ((instant adj messag$4) or conversation or chat))	US-PGPUB; USPAT; EPO; JPO; DERWENT;	AND	OFF	2013/01/10 13:34

			IBM_TDB			
S126	7	S125 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/01/10 13:35
S127	0	time$1stamp$1 with ((infrequent or frequency) near3 ((instant adj messag$4) or conversation or chat))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/01/10 14:40
S128	0	time$1stamp$1 with ((infrequent or frequency) near6 ((instant adj messag$4) or conversation or chat))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/01/10 14:41
S129	0	time$1stamp near6 (characteristic adj3 conversation)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/01/10 19:47
S130	0	time$1stamp with (characteristic adj3 conversation)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/01/10 19:48
S131	349136	time near2 (stamp indicat$4)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/01/10 19:49
S132	57722	characteristic near3 (conversation connection message chat)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/01/10 19:51
S133	25	S131 with S132	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/01/10 19:51
S134	21	S133 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/01/10 19:52
S135	31623	frequency near3 (conversation connection message chat)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/01/10 20:08
S136	125	S131 same S135	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/01/10 20:08
S137	64	S136 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT;	AND	OFF	2013/01/10 20:09

			IBM_TDB			
S138	74	S136 @ad < "20040920"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/01/10 20:38
S139	10	S138 not S137	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/01/10 20:38
S140	2	"20050080866"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/01/11 11:07
S141	0	(active dynamic$4) adj ((time adj information) time$1stamp$4) with (stylus cursor (pointing adj1 device$1) (user adj1 input))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/15 16:24
S142	0	(active dynamic$4) adj ((time adj information) time$1stamp$4) same (stylus cursor (pointing adj1 device$1) (user adj1 input))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/15 16:25
S143	81	(active dynamic$4) adj ((time adj information) time$1stamp$4) and (stylus cursor (pointing adj1 device$1) (user adj1 input))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/15 16:25
S144	1	(active dynamic$4) adj ((time adj information) time$1stamp$4) and ((stylus cursor (pointing adj1 device$1) (user adj1 input)) with ((time adj information) time$1stamp$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/15 16:27
S145	81	(active dynamic$4) adj1 ((time adj information) time$1stamp$4) and (stylus cursor (pointing adj1 device$1) (user adj1 input))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/15 16:29
S146	12	S145 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/15 16:29
S147	42	(active dynamic$4) adj1 (time$1stamp$4) and (stylus cursor (pointing adj1 device$1) (user adj1 input))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/15 16:36
S148	9	S147 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO;	AND	OFF	2013/02/15 16:37

			DERWENT; IBM_TDB			
S149	0	S148 not S146	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/15 16:37
S150	19299	((time adj information) time$1stamp$4) near4 (date day)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/15 16:48
S151	5516	(time$1stamp$4) near4 (date day)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/15 16:50
S152	2570	S151 and (stylus cursor (pointing adj1 device$1) (user adj1 input))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/15 16:51
S153	48	S151 same (stylus cursor (pointing adj1 device$1) (user adj1 input))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/15 16:51
S154	3	S153 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/15 16:51
S155	2570	S151 and (stylus cursor (pointing adj1 device$1) (user adj1 input))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/15 16:54
S156	573	S155 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/15 16:55
S157	2	"20030104841"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/19 16:54
S158	3	"20030060240"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/19 16:58
S159	95	"6590529"	US-PGPUB; USPAT; EPO; JPO;	AND	OFF	2013/02/19 17:01

			DERWENT; IBM_TDB			
S160	2	S159 time$1stamp$1 message$1	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/19 17:03
S161	2	EP "0743762"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2013/02/19 17:10
S162	43	EP "1176840"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/19 17:16
S163	1	S162 time$1stamp$1 message$1	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/19 17:17
S164	16003	709/206,207.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2013/02/19 23:12
S165	6676	709/206,207.ccls.	USPAT	AND	ON	2013/02/19 23:13
S166	1845	709/207.ccls.	USPAT	AND	ON	2013/02/19 23:13
S167	6037	709/206.ccls.	USPAT	AND	ON	2013/02/19 23:13
S168	1206	S166 S167	USPAT	AND	ON	2013/02/19 23:14
S169	11	time near4 (over$1night or following adj day) near4 display$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2013/02/19 23:26
S170	3	S169 @ad < "20040920"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/19 23:32
S171	5524	(time$1stamp$4) near4 (date day)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/20 09:40
S172	2975	(time adj2 (chang$4 progress$4)) near9 ((display$4) near2 time)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/20 09:43

S173	16	S171 and S172	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/20 09:43
S174	0	S171 same S172	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/20 09:43
S175	6	S173 @ad < "20040920"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/20 09:44
S176	10	S173 not S175	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/20 09:47
S177	2	"20070142822"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/20 09:51
S178	2	"20020147135"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/20 10:05
S179	39	(time adj1 zone adj2 (chang$4 progress$4)) near9 ((display$4) near2 time)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/20 10:54
S180	15	S179 @ad < "20040920"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/20 10:55
S181	0	(time$1stamp$4) near4 moving near4 (cursor stylus pointing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/20 12:38
S182	1	(time$1stamp$4) with (moving near4 (cursor stylus pointing))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/20 12:38
S183	76	(time$1stamp$4) near4 (cursor stylus pointing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2013/02/20 12:42

			IBM_TDB			
S184	16	S183 @ad < "20030919"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/20 12:42
S185	25	"6160497"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/20 15:40
S186	2975	(time adj2 (chang$4 progress$4)) near9 ((display$4) near2 time)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/20 15:41
S187	0	S185 S186	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/20 15:41
S188	6	"6069568"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/20 15:47
S189	1	S188 (cursor with time adj stamp$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/20 16:01
S190	0	S185 (cursor with time adj stamp$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/20 17:22
S191	39	(time adj1 zone adj2 (chang$4 progress$4)) near9 ((display$4) near2 time)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/20 17:34
S192	15	S191 @ad < "20040920"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/20 17:34
S193	0	S192 (dispay$4 with time with (select$4 or input$4))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/20 17:34
S194	11	S192 (display$4 with time with (select$4 or input$4 or cursor or stylus))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/20 17:36
S195	8	(gmail or google) with (display$4 with time with (select$4 or	US-PGPUB; USPAT; EPO;	AND	OFF	2013/02/20 17:52

		input$4 or cursor or stylus))	JPO; DERWENT; IBM_TDB			
S196	0	S195 @ad < "20040920"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/20 17:53
S197	20322	(display$4 near3 (time time$1stamp$1)) adj6 (select$4 or input$4 or cursor or stylus)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/02/20 18:02
S198	7381	S197 and ((instant adj messag$4) message$1 email$1 e-mail$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/02/20 18:04
S199	1061	S197 same ((instant adj messag$4) message$1 email$1 e-mail$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/02/20 18:04
S200	604	S197 with ((instant adj messag$4) message$1 email$1 e-mail$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2013/02/20 18:04
S201	333	S200 @ad < "20040920"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/20 18:05
S202	16002	709/206,207.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/20 18:05
S203	6	S201 and S202	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/20 18:05
S204	12720926	(stylus cursor (pointing adj1 device$1)) adj2 over (time time$1stamp$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/23 22:25
S205	218	(stylus cursor (pointing adj1 device$1)) adj2 over adj2 (time time$1stamp$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/23 22:26
S206	169277	(time$1stamp$1 or time) near6 message$1	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/23 22:29

S207	29	S205 S206	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/23 22:29
S208	13	S207 @ad < "20040920"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/23 22:30
S209	0	(stylus cursor (pointing adj1 device$1)) adj2 over adj2 (time$1stamp$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/23 22:46
S210	25	(stylus cursor (pointing adj1 device$1)) adj6 (time$1stamp$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/23 22:47
S211	5	S210 @ad < "20040920"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/23 22:47
S212	6992	(time$1stamp$4) near6 (date day (absolute adj time) (relative adj time))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/24 08:56
S213	8002	(time$1stamp$4) near6 (date day (absolute adj time) (relative adj time) duration)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/24 08:57
S214	4204	(time$1stamp$1) near6 (select$4 or input$4 or cursor or stylus)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/24 08:58
S215	876	S213 S214	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/24 08:59
S216	5229	(time$1stamp$1) near3 (first or second)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/24 09:01
S217	262	S215 S216	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/24 09:01
S218	29	S217 (IM or instant adj	US-PGPUB;	AND	OFF	2013/02/24

		messag$4 or chat$4)	USPAT; EPO; JPO; DERWENT; IBM_TDB			09:02
S219	11	S218 @ad < "20040920"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/24 09:03
S220	261	S213 same S214	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/24 09:22
S221	9	S220 first adj (time$1stamp$1)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/24 09:23
S222	4	S221 @ad < "20040920"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/24 09:23
S223	21	(time$1stamp$4) near6 (date day) and (absolute adj time) and (relative adj time) and duration	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/24 09:29
S224	1	S223 @ad < "20040920"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/24 09:29
S225	39	(time adj1 zone adj2 (chang$4 progress$4)) near9 ((display$4) near2 time)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/02/25 09:37
S226	15	S225 @ad < "20040920"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2013/02/25 09:37

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S92	1637	709/207.ccls.	USPAT	AND	OFF	2012/06/20 19:49
S93	2533	709/207.ccls.	US-PGPUB; USPAT; UPAD	AND	OFF	2012/06/20 19:49
S94	235	klassen-gerhard$.in.	US-PGPUB; USPAT; UPAD	AND	ON	2012/06/20 19:51
S95	62	klassen-gerhard$.in.	USPAT	AND	ON	2012/06/20 19:51

S96	18	wormald-christopher$.in.	USPAT	AND	ON	2012/06/20 19:55
S97	19	kuhl-lawrence$.in.	USPAT	AND	ON	2012/06/20 19:56

2/25/2013 2:36:03 PM

Patents 13615419

8/3,K/1 (Item 1 from file: 347)
DIALOG(R)File 347: JAPIO

04948186 **Image available**
VOICE RECORDING AND REPRODUCING DEVICE

Pub. No.: 07-240786 [JP 7240786 A]
Published: September 12, 1995 (**19950912)**
Inventor: MATSUZAKI NOBUO
TAKENAKA AKIHIRO
Applicant: TOSHIBA CORP [000307] (A Japanese Company or Corporation), JP (Japan)
TOSHIBA COMMUN TECHNOL KK [000000] (A Japanese Company or Corporation), JP (Japan)
Application No.: 06-029198 [JP 9429198]
Filed: February 28, 1994 (19940228) ...
Published: 19950912)

ABSTRACT
PURPOSE: To **reduce** the recording information quantity of **time stamp information** and to **increase** the number of**messages** per unit recording capacity as a result... ...the constituent of the time stamp information is stored in the code storage area 12a of an ICM circuit 12 at every reception of the **message** corresponding to the **message**. Also, in a **message**reproduction mode, the code data of the time stamp information is read out from the code storage area 12a of the ICM circuit 12, and... ...to an OGM circuit 11, thereby, synthesized speech data in accordance with the code data is generated from the OGM circuit 11, and the voice **message** of the time stamp information can be reproduced and outputted. Di01

8/3,K/2 (Item 1 from file: 350)
DIALOG(R)File 350: Derwent WPIX

0015589284 *Drawing available*
WPI Acc no: 2006-153449/200616
XRPX Acc No: N2006-132573
Communication device for distributed control system, has communication controller automatically storing time stamp values in response to event pulses corresponding to events associated with received and transmittedmessages
Patent Assignee: BENSON R R (BENS-I); FISHER-ROSEMOUNT SYSTEMS INC (ROEC); FRANCHUK B A (FRAN-I)
Inventor: BENSON R R; FRANCHUK B A; BENSON R; FRANCHUK B

Patent Family (9 patents, 110 countries)							
Patent Number	**Kind**	**Date**	**Application Number**	**Kind**	**Date**	**Update**	**Type**
US 20060026314	A1	20060202	US 2004903317	A	20040730	200616	B
WO 2006020278	A2	20060223	WO 2005US25506	A	20050715	200616	E
EP 1784739	A2	20070516	EP 2005773007	A	20050715	200734	E
			WO 2005US25506	A	20050715		
JP 2008508796	W	20080321	WO 2005US25506	A	20050715	200823	E
			JP 2007523634	A	20050715		
CN 101390072	A	20090318	CN 200580032849	A	20050715	200925	E
			WO 2005US25506	A	20050715		
US 7689687	B2	20100330	US 2004903317	A	20040730	201023	E
JP 4847955	B2	20111228	WO 2005US25506	A	20050715	201203	E
			JP 2007523634	A	20050715		
WO 2006020278	A3	20070301	WO 2005US25506	A	20050715	201224	E
CN 101390072	B	20120530	CN 200580032849	A	20050715	201257	E
			WO 2005US25506	A	20050715		

...**for distributed control system, has communication controller automatically storing time stamp values in response to event pulses corresponding to events associated with received and transmitted messages Alerting Abstract**...NOVELTY - A medium attachment unit (MAU) receives and transmits **messages** on communication medium. A CPU processes data in received **messages** and creates data to be contained in **messages** to be transmitted. A communication controller interfacing between MAU and CPU, produces event pulses corresponding to events associated with received and transmitted **messages** and automatically stores time stamp values in response to event pulses. ... method of time stamping**messages**; and device for time stamping **messages**. ... ... scale, transducer, valve positioner, valve controller, actuator, solenoid and indicator light of process control systems and distributed control system (DCS) in industrial plant, for communicating **messages** comprising secondary process variables, diagnostic information e.g. sensor, device, wiring and process diagnostics, operating temperature, sensor temperature, calibration information, device identification (ID) number, materials... ... ADVANTAGE - Automatic time stamping in communication controller, eliminates the software overhead required to do all the calculations and encoding of **time stamp data** and greatly **increases** accuracy of **time stamp** values. Frees the application processor or CPU to perform other functions, since communication controller performs processing of**messages** and timer management**Title Terms** .../Index Terms/Additional Words: **MESSAGE Class Codes** Original Publication Data by AuthorityArgentina**Publication No. Original Abstracts:** Devices in a process control system communicate by data **messages** over a communication medium segment. Each

device includes a communication controller that automatically time stamps events associated with received and transmitted **messages**. ... ... Devices in a process control system communicate by data **messages** over a communication medium segment. Each device includes a communication controller that automatically time stamps events associated with received and transmitted **messages**. ... ... Devices in a process control system communicate by data **messages** over a communication medium segment. Each device includes a communication controller that automatically time stamps events associated with received and transmitted **messages**. ... ... Devices in a process control system communicate by data **messages** over a communication medium segment. Each device includes a communication controller that automatically time stamps events associated with received and transmitted **messages**. ... ... Devices in a process control system communicate by data **messages** over a communication medium segment. Each device includes a communication controller that automatically time stamps events associated with received and transmitted **messages**. ... ... L'invention concerne des dispositifs dans un systeme de commande de processus qui communiquent par **messages** de donnees sur un segment de support de communication. Chaque dispositif comprend un controleur qui assure automatiquement l'horodatage d'evenements associes a des **messages** recus et envoyes... ... Devices in a process control system communicate by data **messages** over a communicationmedium segment. Each device includes a communication controller that automaticallytime stamps events associated with received and transmitted **messages. Claims:**[CLAIM 1] A device for communicating over a communication medium, the device comprising: a medium attachment unit (MAU) for receiving and transmitting **messages** on the communication medium; a central processing unit (CPU) for processing data contained in **messages** received and creating data to be contained in **messages** to be transmitted; and a communication controller for interfacing between the MAU and the CPU, the communication controller producing event pulses corresponding to events associated with received and transmitted**messages** and automatically storing time stamp values in response to the event pulses... ...CLAIM 2] The device according to claim 1, wherein the communication controller inserts a stored time stamp value into a **message** being transmitted... ...CLAIM 3] The device according to claim 2, wherein the event pulses include a start of **message** event pulse and, wherein the stored time stamp value inserted into the **message** represents a local time of the device when the start of **message** event pulse occurred... ...CLAIM 4] The device according to claim 2, wherein the communication controller detects what type of **message**is being transmitted and selects a location within the **message** for insertion of the time stamp value based on the type of**message**. [... ...CLAIM 5] The device according to claim 1, wherein the event pulses include an end of **message** event pulse produced by the communication controller when a received **message** ends... ...The device according to claim 1, wherein the event pulses include an end of transmission event pulse produced by the communication controller when a transmitted **message**ends... ...The device according to claim 1, wherein the event pulses include a start of activity event pulse produced by the communication controller when a received **message** starts to be decoded...CLAIM 15] A method of time stamping **messages**exchanged between devices over a network, the method comprising: transmitting and receiving **messages** over a network; generating a first timer value that changes at a first **clock rate**; producing event pulses

corresponding to selected events associated with transmitted and received **messages**; and storing a first time stamp value representing the first timer value when one of the event pulses is produced... ...CLAIM 16] The method according to claim 15, further comprising: generating a second timer value that changes at a second **clock rate** that is higher than the first **clock rate**; and storing a second **time** stamp value representing the second timer value when one of the event pulses is produced... ...CLAIM 18] The method according to claim 17, wherein the first and second **clock rates** are variable and synchronized... ...CLAIM 19] The method according to claim 15, further comprising: inserting the first time stamp value into a **message** being transmitted... ...CLAIM 20] The method according to claim 19, wherein the event pulses include a start of **message** event pulse and, wherein the first time stamp value inserted into the **message** represents a local time of the device when the start of **message** event pulse occurred... ...CLAIM 21] The method according to claim 19, further comprising: detecting what type of **message** is being transmitted; and selecting a location within the **message** for insertion of the time stamp value based on the type of **message**. [... ...CLAIM 22] The device according to claim 15, wherein the event pulses include an end of **message** event pulse produced when a received **message**ends... ...CLAIM 23] The device according to claim 15, wherein the event pulses include an end of transmission event pulse produced when a transmitted **message** ends include a start of activity event pulse produced when a received **message** starts to be decoded... ... CLAIM 25] A method of time stamping **messages** transmitted and received by devices over a process control network, the method comprising: synchronizing in each device a local internal sense of time with a node sense of time on a segment of the network; producing event pulses when events associated with the **messages** occur; and transferring time stamp values corresponding to the local and node senses of time to snapshot registers when an event pulse occurs... ... CLAIM 26] The method according to claim 25, wherein the event pulses include an End of **Message** (EOM) pulse, an End of Transmission (EOT) pulse, a Start of Activity (SOA) pulse, and a Start of Transmission (SOT) pulse... ... CLAIM 1] A device for communicating over a communication medium, wherein the device comprises: a medium attachment unit (MAU) for receiving and transmitting **messages** on the communication medium; a central processing unit (CPU) for processing data contained in **messages** received and creating data to be contained in **messages** to be transmitted; and a communication controller for interfacing between the MAU and the CPU, the communication controller producing event pulses corresponding to events associated with received and transmitted **messages** and automatically storing time stamp values in response to the event pulses. a communication controller comprises: The first timer, for providing of the earliest a... ... 1. A device for communicating over a communication medium, the device comprising:a medium attachment unit (MAU) for receiving and transmitting **messages** on the communication medium;a central processing unit (CPU) for processing data contained in**messages** received and creating data to be contained in **messages** to be transmitted; anda communication controller for interfacing between the MAU and the CPU, the communication controller producing event pulses corresponding to events associated with received and transmitted **messages** and automatically storing time stamp values in response to the event pulses... ... The invention claimed is: 1. A device for communicating over a communication medium, the device comprising: a medium

attachment unit (MAU) for receiving and transmitting **messages** on the communication medium; a central processing unit (CPU) for processing data contained in **messages** received and creating data to be contained in **messages** to be transmitted; and a communication controller for interfacing between the MAU and the CPU, the communication controller producing event pulses corresponding to events associated with received and transmitted **messages** and automatically storing time stamp values in response to the event pulses, wherein the communication controller includes a first timer for providing a first time... Basic Derwent Week: 200616

8/3,K/3 (Item 2 from file: 350)
DIALOG(R)File 350: Derwent WPIX

0013660944 *Drawing available*
WPI Acc no: 2003-757198/200371
XRPX Acc No: N2003-606787
Video signal format inversion method, involves attaching information indicating frame position of video signal whose video data varied due to format conversion to time code signal corresponding to video signal
Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU); MATSUSHITA ELECTRIC IND CO LTD (MATU)
Inventor: HOSODA T; SHIMAMURA Y; UENO M; UJI K; URO K

Patent Family (5 patents, 29 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2003079685	A1	20030925	WO 2003JP2977	A	20030313	200371	B
JP 2003274370	A	20030926	JP 200276104	A	20020319	200373	E
EP 1487209	A1	20041215	EP 2003710333	A	20030313	200482	E
			WO 2003JP2977	A	20030313		
US 20050162546	A1	20050728	WO 2003JP2977	A	20030313	200550	E
			US 2004508051	A	20040917		
US 7310117	B2	20071218	WO 2003JP2977	A	20030313	200802	E
			US 2004508051	A	20040917		

Alerting Abstract ... DESCRIPTION OF DRAWINGS - The figure shows the block diagram of the time code transmitting apparatus. (Drawing includes non-English language **text**).Original Publication Data by AuthorityArgentina**Publication No.**...**Original Abstracts:**is attached to the time code signal to be transmitted. Alternatively, information indicating a synchronous state between frame conversion cycles in the format conversion and **time** code **progression** is attached to the **time** code signal. In the foregoingmanner, a relationship between the frame position and the time code can be accurately grasped. Further, a secondary conversion (inverse

conversion... ... is attached to the time code signal to be transmitted. Alternatively, information indicating a synchronous state between frame conversion cycles in the format conversion and **time** code **progression** is attached to the **time** code signal. In the fore going manner, a relationship between the frame position and the time code can be accurately grasped. Further, a secondary conversion... ... is attached to the time code signal to be transmitted. Alternatively, information indicating a synchronous state between frame conversion cycles in the format conversion
and **time** code**progression** is attached to the **time** code signal. In the foregoing manner, a relationship between the frame position and the time code can be accurately grasped. Further, a secondary conversion (inverse... ... in the number of frames per second, information indicative of the frame position of the video signal whose video data varies due to the format **conversion** is attached to the **time code** signal to be transmitted. **Additionally**, **information** indicative of the state of synchronism between the frame conversion period at the time of the format conversion and the time code process is also... Basic Derwent Week: 200371

8/3,K/4 (Item 3 from file: 350)
DIALOG(R)File 350: Derwent WPIX

0013650583 *Drawing available*
WPI Acc no: 2003-746612/200370
XRPX Acc No: N2003-598293
Extended markup language client abstraction layer for web- based application design, has XML parser to provide new features to XML templates
Patent Assignee: DENCKER T (DENC-I); FISCHER C (FISC-I); ROESSLER A (ROES-I); SAP AG (SSAP)
Inventor: DENCKER T; FISCHER C; ROESSLER A; ROEESSLER A

Patent Family (2 patents, 1 countries)							
Patent Number	**Kind**	**Date**	**Application Number**	**Kind**	**Date**	**Update**	**Type**
US 20030172344	A1	20030911	US 200295354	A	20020311	200370	B
US 7131064	B2	20061031	US 200295354	A	20020311	200672	E

Alerting Abstract USE - For design of web-based applications involving generation of different hyper **text** markup language (HTML) pages... ...error handling, central management of browser dependencies, syntax and plausibility checks, tracing and debugging, lessening of training effort required, easily readable and understandable templates, device **specific** views, better performance and **increased** stability. The XSLT derives run **time code** from the XML pages, hence development is standardized. Hence, programmers need not use own special programming techniques to develop code. Hence maintainability of code is... Basic Derwent Week: 200370

8/3,K/5 (Item 4 from file: 350)
DIALOG(R)File 350: Derwent WPIX

0012299132
WPI Acc no: 2002-240296/200229
Related WPI Acc No: 2002-321214
XRPX Acc No: N2002-185460
CPI-type image processing apparatus for AV stream data recording in which EP-map type is used if position of I picture can be analyzed else U-map type is used
Patent Assignee: SONY CORP (SONY); HAMADA T (HAMA-I); KATO M (KATO-I)
Inventor: HAMADA T; KATO M

Patent Family (69 patents, 47 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2001082606	A1	20011101	WO 2001JP3415	A	20010420	200229	B
AU 200154403	A	20011107	AU 200154403	A	20010420	200229	E
NO 200106292	A	20020220	WO 2001JP3415	A	20010420	200229	E
			NO 20016292	A	20011220		
BR 200106082	A	20020521	BR 20016082	A	20010420	200238	E
			WO 2001JP3415	A	20010420		
JP 2002158972	A	20020531	JP 200191830	A	20010328	200239	E
KR 2002020918	A	20020316	KR 2001716422	A	20011221	200263	E
US 20020135607	A1	20020926	WO 2001JP3415	A	20010420	200265	E
			US 200218846	A	20020412		
HU 200202198	B	20021028	WO 2001JP3415	A	20010420	200277	E
			HU 20022198	A	20010420		
CZ 200104489	A3	20021016	CZ 20014489	A	20010420	200279	E
			WO 2001JP3415	A	20010420		
SK 200101898	A3	20030109	SK 20011898	A	20010420	200309	E
			WO 2001JP3415	A	20010420		
EP 1280347	A1	20030129	EP 2001921964	A	20010420	200310	E
			WO 2001JP3415	A	20010420		
CN 1381137	A	20021120	CN 2001801571	A	20010420	200319	E
MX 2001013122	A1	20020601	WO 2001JP3415	A	20010420	200365	E
			MX 200113122	A	20011218		
ZA 200110323	A	20030923	ZA 200110323	A	20011214	200368	E
NZ 516140	A	20031219	NZ 516140	A	20010420	200404	E

			WO 2001JP3415	A	20010420		
US 20050025461	A1	20050203	WO 2001JP3415	A	20010420	200511	E
			US 200218846	A	20020412		
			US 2004925658	A	20040823		
AU 779673	B2	20050203	AU 200154403	A	20010420	200525	E
CN 1607825	A	20050420	CN 2001801571	A	20010420	200554	E
			CN 200410085788	A	20010420		
EP 1569449	A2	20050831	EP 2001921964	A	20010420	200561	E
			EP 200576079	A	20010420		
RU 2273109	C2	20060327	WO 2001JP3415	A	20010420	200622	E
			RU 2002101128	A	20010420		
MX 235210	B	20060327	WO 2001JP3415	A	20010420	200651	E
			MX 200113122	A	20011218		
IN 200101585	P3	20070427	WO 2001JP3415	A	20010420	200737	E
			IN 2001MN1585	A	20011213		
RU 2314653	C2	20080110	RU 2002101128	A	20010420	200805	E
			RU 2005117968	A	20010420		
CN 100348033	C	20071107	CN 2001801571	A	20010420	200830	E
IL 147155	A	20080708	IL 147155	A	20010420	200852	E
CN 100394791	C	20080611	CN 200410085788	A	20010420	200865	E
RO 122068	B1	20081128	RO 20011351	A	20010420	200910	E
			WO 2001JP3415	A	20010420		
KR 2008091525	A	20081013	WO 2001JP3415	A	20010420	200912	E
			KR 2001716422	A	20011221		
			KR 2008723241	A	20080923		
KR 875782	B1	20081224	WO 2001JP3415	A	20010420	200914	E
			KR 2001716422	A	20011221		
MX 263798	B	20090114	WO 2001JP3415	A	20010420	200961	E
			MX 20054291	A	20011218		
IN 212053	B	20080125	WO 2001JP3415	A	20010420	200966	E
			IN 2001MN1585	A	20011213		
			IN 2001MN1585	A	20011213		
KR 948439	B1	20100317	WO 2001JP3415	A	20010420	201035	E
			KR 2001716422	A	20011221		
			KR 2008723241	A	20080923		

US 7738776	B2	20100615	WO 2001JP3415	A	20010420	201039	E
			US 200218846	A	20020412		
JP 2010148140	A	20100701	JP 200191830	A	20010328	201043	E
			JP 201020766	A	20100201		
EP 2256736	A2	20101201	EP 2001921964	A	20010420	201079	E
			EP 2010177097	A	20010420		
EP 2256737	A2	20101201	EP 2001921964	A	20010420	201079	E
			EP 2010177393	A	20010420		
EP 2256738	A2	20101201	EP 2001921964	A	20010420	201079	E
			EP 2010177417	A	20010420		
EP 2256739	A2	20101201	EP 2001921964	A	20010420	201079	E
			EP 2010177420	A	20010420		
JP 4599740	B2	20101215	JP 200191830	A	20010328	201082	E
JP 2011004413	A	20110106	JP 200191830	A	20010328	201104	E
			JP 2010175703	A	20100804		
JP 2011135616	A	20110707	JP 201020766	A	20010328	201144	E
			JP 201165247	A	20110324		
JP 2011166800	A	20110825	JP 201020766	A	20010328	201156	E
			JP 201165243	A	20110324		
JP 2011166801	A	20110825	JP 201020766	A	20010328	201156	E
			JP 201165244	A	20110324		
JP 2011166802	A	20110825	JP 201020766	A	20010328	201156	E
			JP 201165245	A	20110324		
JP 2011166803	A	20110825	JP 201020766	A	20010328	201156	E
			JP 201165246	A	20110324		
EP 2256736	A3	20120111	EP 2001921964	A	20010420	201204	E
			EP 2010177097	A	20010420		
EP 2256737	A3	20120111	EP 2001921964	A	20010420	201204	E
			EP 2010177393	A	20010420		
EP 2256738	A3	20120118	EP 2001921964	A	20010420	201206	E
			EP 2010177417	A	20010420		
EP 2256739	A3	20120118	EP 2001921964	A	20010420	201206	E
			EP 2010177420	A	20010420		
JP 2012065359	A	20120329	JP 201165243	A	20010328	201223	E
			JP 2011271259	A	20111212		

JP 2012065361	A	20120329	JP 201165244	A	20010328	201223	E
			JP 2011272073	A	20111213		
JP 2012065363	A	20120329	JP 201165245	A	20010328	201223	E
			JP 2011272992	A	20111214		
JP 4915484	B2	20120411	JP 201020766	A	20010328	201225	E
			JP 201165243	A	20110324		
JP 4919127	B2	20120418	JP 201020766	A	20010328	201227	E
			JP 201165244	A	20110324		
JP 4919128	B2	20120418	JP 201020766	A	20010328	201227	E
			JP 201165245	A	20110324		
JP 4919129	B2	20120418	JP 201020766	A	20010328	201227	E
			JP 201165246	A	20110324		
JP 4919130	B2	20120418	JP 201020766	A	20010328	201227	E
			JP 201165247	A	20110324		
JP 4947159	B2	20120606	JP 200191830	A	20010328	201237	E
			JP 201020766	A	20100201		
JP 2012130005	A	20120705	JP 201165246	A	20010328	201244	E
			JP 2011272074	A	20111213		
JP 2012130006	A	20120705	JP 201165247	A	20010328	201244	E
			JP 2011272991	A	20111214		
JP 2012130019	A	20120705	JP 201020766	A	20010328	201244	E
			JP 20124836	A	20120113		
JP 4999972	B2	20120815	JP 200191830	A	20010328	201253	E
			JP 2010175703	A	20100804		
JP 5051802	B2	20121017	JP 201165243	A	20010328	201268	E
			JP 2011271259	A	20111212		
JP 5051803	B2	20121017	JP 201165244	A	20010328	201268	E
			JP 2011272073	A	20111213		
JP 5051804	B2	20121017	JP 201165246	A	20010328	201268	E
			JP 2011272074	A	20111213		
JP 5051805	B2	20121017	JP 201165245	A	20010328	201268	E
			JP 2011272992	A	20111214		
JP 5051807	B2	20121017	JP 201020766	A	20010328	201268	E
			JP 20124836	A	20120113		
JP 5063808	B2	20121031	JP 201165247	A	20010328	201271	E

			JP 2011272991	A	20111214		
EP 1569449	B1	20121121	EP 2001921964	A	20010420	201276	E
			EP 200576079	A	20010420		

Alerting Abstract ...DESCRIPTION OF DRAWINGS - The drawing shows a block diagram (the drawing includes non-English language **text)**. Original Publication Data by AuthorityArgentina**Publication No.** ...**Original Abstracts:**of the deletion with a user's instruction|indication after demanding confirmation (warning) from a user with respect to operation called deletion by displaying a **message** etc. which are called"Virtual PlayList which is referring the stream part of Clip which the Real PlayList is referring exists, Erasure|elimination of the... subpath|pass.Postrecording of this audio is supported by the application format.An additional audio stream is added to AV stream of a main path| **pass** of Virtual PlayList as a subpath|pass.As operation common to Real PlayList and Virtual PlayList, there exists a change (Moving) of the reproduction|regeneration...map has a list|wrist of **time** unit (TU) data based on the arrival time of the transport packet inputted through a digital interface.This gives the relationship between the time of... Decimal(BCD).For example, it is used as it said that the recording/reproducing apparatus 1 erase|eliminated automatically PlayList over which this active|validity **period passed**.For example, 2001/05/07 is encoded with"0x20010507".maker...freely.When this flag is set to 1, before a user erase|eliminates, edits or overwrites that PlayList, the recording/reproducing apparatus 1 displays a **message** which is reconfirmed to a user.Real PlayList by which write...time is a 32 bit field and stores the reproduction|regeneration finish **time** of PlayItem.The semantics of OUT...PlayItem shows the **time** in which sub path carries out the reproduction|regeneration start on the time-axis of main path, 32 bits of high-orders of PTS(Presentaiotn...stream corresponding to Clip is recorded is stored, 14 numbers are encoded by 4 bits Binary Coded Decimal(BCD) about a /part / second at the **time** of year / month /day/.For example, 2001/12/23:01:02:03 are encoded with"0x20011223010203".duration is the 24 bits field which showed the... flag is 1, it shows that recording mode is a mode in which it is recorded with respect to the **time passage** after recording as file size is proportional, You have to satisfy|fill the conditions shown in following Formula. TS... ...**time**)+(alpha)Here, TS... ...the average bit rate of the transport stream of AV stream file with a bytes/second unit.Moreover, in an above formula, t shows the **time** represented by a based on the second, and start...**rate**.When **time** ... ...flag is set to zero, recording mode shows not controlling so that the file size of AV stream is proportional to the **time passage** of recording.For example, this is a case where transparent recording of the input transport stream is carried out.When time...sequence.When AV stream contains the STC discontinuous point of N (N(much**greater** than) 0) piece, the system **time** base of Clip is divided|segmented into STC... type is equal to one ('audio'), this field shows the relative address of the source|sauce pocket containing the 1st byte|cutting-tool eye| **texture** of the audio flame|frame of the access unit referred by PTS ...**time** in TU... ...**time** ...**Claims:**of the sub reproduction pass and the AV stream which the sub reproduction pass refers and sub reproduction pass and out point, and sub reproduction **pass**, and the **time** axis of the main path and which the time axis

disclose...CLAIM 61] The information processing unit including the presentation time stamp of claim 60, wherein the path control information shows the presentation initiation **time** of the supplementary **pass** based on the**time** axis of the main path... ...unit including the IN time information and OUT time information of claim 60, wherein the path control information shows the presentation initiation time and finish **time** of the supplementary **pass**. [... ...Information and/or audio, and the path control information and the output unit outputting the map information; and the sub play item on the supplementary **pass** is synchronized in the **time** axis of the play item on the main path of the information processing unit comprising the main path information showing the presentation pass consisting of... CLAIM 71] The method for information processing including the presentation time stamp of claim 70, wherein the path control information shows the presentation initiation **time** of the supplementary **pass** based on the **time** axis of the main path... ...processing including the IN time information and OUT time information of claim 70, wherein the path control information shows the presentation initiation time and finish **time** of the supplementary **pass**. [... ...CLAIM 76] The method for information processing having the presentation initiation time which includes; and the sub play item on the supplementary **pass** is synchronized in the **time** axis of the play item on the main path a step for the path control information including the secondary pass information showing the comprised presentation...picture information reproducing apparatus and/or the audio including the presentation time stamp of claim 80, wherein the path control information shows the presentation initiation **time** of the supplementary **pass** based on the **time** axis of the main path... ...audio including the IN time information and OUT time information of claim 80, wherein the path control information shows the presentation initiation time and finish **time** of the supplementary **pass**. [...picture information playback method and/or the audio including the presentation time stamp of claim 90, wherein the path control information shows the presentation initiation **time** of the supplementary **pass** based on the **time** axis of the main path... ...audio including the IN time information and OUT time information of claim 90, wherein the path control information shows the presentation initiation time and finish **time** of the supplementary **pass**. [...CLAIM 96] The picture information playback method and/or audio having the presentation initiation time which includes; and the sub play item on the supplementary **pass** is synchronized in the **time** axis of the play item on the main path a step for reproducing the path control information, a step for restoring the path control information...CLAIM 107] The main path information showing the presentation **pass** consisting of the presentation **time** stamp of the entry point of the play item, and the map information describing relation with the address of the access unit relating to the... ...information showing the comprised presentation pass is recording medium having the presentation initiation time which is recorded; and the sub play item on the supplementary **pass** is synchronized in the **time** axis of the play item on the main path as to the recording medium which can be used in computer... ...or the picture Information, and the map information describing relation with the address with the presentation time stamp of the entry point and the presentation **pass** including the IN **time** and the second play item indicating the OUT time of one or more second elementary streams having the presentation time stamp the play list file... ...CLAIM 2] The information processing unit which the presentation time stamp showing the presentation initiation**time** of the supplementary **pass** as to the first claim is based on

the time axis of the main path to the first claim, and OUT time is the presentation initiation **time** of the supplementary **pass** and the information processing unit for showing the finish time... ...CLAIM 5] Information processing unit equipped with the identifying information showing the system **time clock** domain having the supplementary **pass** information, is the IN **time** and OUT time as to claim 4... ...the map information describing relation with the address of the presentation time stamp of the entry point and the access unit relating to the presentation **time**stamp and the secondary **pass** information showing the presentation **pass** including the IN **time** and one or more secondary play item (sub-play item) indicating the OUT time of one or more second elementary streams having the presentation time... ...picture Information and/or the picture Information. The information processing unit which the presentation initiation time of the supplementary play item included in the supplementary **pass** information is synchronized in the **time** axis of the first play item...the map information describing relation with the address with the presentation time stamp of the entry point and the secondary pass information showing the presentation **pass** including the IN **time** and the second play item indicating the OUT time of one or more second elementary streams having presentation time stamp data step of outputting the... ...CLAIM 12] The method for information processing which the presentation time stamp showing the presentation initiation **time** of the supplementary **pass** as to the eleventh claim is based on the time axis of the main path... ...CLAIM 13] The IN time of one or more second elementary streams as to the eleventh claim, and OUT time is the presentation initiation **time** of the supplementary**pass** and the method for information processing for showing the finish time... ...the map information describing relation with the address of the presentation time stamp of the entry point and the access unit relating to the presentation **time** stamp and the secondary **pass** information showing the presentation **pass** including the IN **time** and one or more secondary play item indicating the OUT time of one or more second elementary streams having presentation time stamp data step of... ...the picture Information and/or the picture Information. The method for information processing which the presentation pass of the supplementary play item on the supplementary **pass** information is synchronized in the **time** axis of the play item on the main path information...and the clip information and audio and/or the picture Information are included; the path control information includes the main path information showing the presentation **pass** including the IN **time** and the first play item indicating the OUT time of one or more first elementary streams and the secondary pass information showing the presentation **pass** which contains the IN **time** of one or more second elementary streams except the elementary stream and the second play item indicating the OUT time to show with the first... ...the map information describing relation with the address with the presentation time stamp of the entry point and the secondary pass information showing the presentation **pass** including the IN **time** of the elementary stream except the elementary stream which is shown with the first play item and the second play item indicating the OUT time... ...CLAIM 22] Audio and/or the picture information reproducing apparatus which the presentation time stamp showing the presentation initiation **time** of the supplementary **pass** as to claim 21 is based on the time axis of the main path... ...elementary stream except the elementary stream which is shown as to claim 21 with the first play item and OUT time is the presentation initiation **time** of the supplementary **pass** and audio and/or the picture information

reproducing apparatus for showing the finish time ...presentation time stamp from the storage media in which audio and/or the picture Information is stored and the main path information showing the presentation **pass** including the IN **time** and one or more play item indicating the OUT time of one or more first elementary streams and the secondary pass information showing the presentation **pass** including the IN **time** and one or more secondary play item indicating the OUT time of one or more second elementary streams having presentation time stamp data; the audio... ...or the picture Information. Audio and/or the picture information reproducing apparatus which the presentation initiation time of the supplementary play item on the supplementary **pass** information is synchronized in the **time** axis of one or more play item on the main path information; and one or more second elementary streams are based on the input audio... ...CLAIM 29] As to reproducer, play list file equipped with path control information having the secondary pass information showing the presentation **pass** including the IN **time** and the second play item indicating the OUT time of the main path information showing the presentation **pass** including the IN **time** and the first play item indicating the OUT time of one or more first elementary streams and one or more second elementary streams and the...audio and/or the picture Information is stored with the presentation time stamp of the entry point and the main path information showing the presentation **pass** including the IN **time** and the first play item indicating the OUT time of one or more first elementary streams and the secondary pass information showing the presentation **pass** including the IN **time** and the second play item indicating the OUT time of one or more second elementary streams having presentation time stamp data; and one or more... ...CLAIM 32] Audio and/or the picture information playback method which the presentation time stamp showing the presentation initiation**time** of the supplementary **pass** as to claim 31 is based on the time axis of the main path... ...CLAIM 33] The IN time of one or more second elementary streams as to claim 31, and OUT time is the presentation initiation **time** of the supplementary **pass**and audio and/or the picture information playback method for showing the finish time... ...presentation time stamp from the storage media in which audio and/or the picture Information is stored and the main path information showing the presentation**pass** including the IN **time** and one or more play item indicating the OUT time of one or more first elementary streams and the secondary pass information showing the presentation **pass** including the IN **time** of one or more second elementary streams except the elementary stream which is shown with one or more play item and one or more secondary... ...presentation time stamp data. Audio and/or the picture information playback method which the presentation initiation time of the supplementary play item on the supplementary **pass** information is synchronized in the **time** axis of one or more play item on the main path information; and one or more second elementary streams are based on the input audio... CLAIM 39] As to the refresh method, play list file equipped with path control information having the secondary pass information showing the presentation **pass**including the IN **time** and the second play item indicating the OUT time of the main path information showing the presentation**pass** including the IN **time** and the first play item indicating the OUT time of one or more first elementary streams and one or more second elementary streams and step... address with the presentation time stamp of the entry point of audio and/or the picture Information and the secondary pass information showing the

presentation **pass** including the IN **time** of one or more second elementary streams except the elementary stream which is shown with the first play item and the second play item indicating... ... the map information describing relation with the address of the presentation time stamp of the entry point and the access unit relating to the presentation **time** stamp and the secondary **pass** information showing the presentation **pass** including the IN **time** of one or more second elementary streams except the elementary stream which is shown with one or more play item and one or more secondary... ... item indicating the OUT time having presentation time stamp data is recorded; and the presentation initiation time of the supplementary play item on the supplementary **pass** information is synchronized with the **time**axis of one or more play item on the main path information. The computer readable recording medium which one or more second elementary streams are... ... readable recording medium which can be used for computer, play list file equipped with path control information having the secondary pass information showing the presentation **pass** including the IN **time** and the second play item indicating the OUT time of the main path information showing the presentation **pass** including the IN **time** and the first play item indicating the OUT time of one or more first elementary streams and one or more second elementary streams and the... Basic Derwent Week: 200229

8/3,K/6 (Item 5 from file: 350)
DIALOG(R)File 350: Derwent WPIX

0012279049 *Drawing available*
WPI Acc no: 2002-219894/200228
XRPX Acc No: N2002-168643
Time-stamp information processor for video tape recorder, encodes time-stamp information for setting preset interval between each packet of transmitted program signal
Patent Assignee: VICTOR CO OF JAPAN (VICO)
Inventor: KITAMURA H

Patent Family (1 patents, 1 countries)							
Patent Number	**Kind**	**Date**	**Application Number**	**Kind**	**Date**	**Update**	**Type**
JP 2001177794	A	20010629	JP 1999362461	A	19991221	200228	B

Alerting Abstract ...ADVANTAGE - **Reduces** data recording time, by recording **time** - **stamp information** at **higher rate**than program signal recording rate... ...DESCRIPTION OF DRAWINGS - The figure shows the block diagram of time-stamp information processor. (Drawing includes non-English language **text**). Basic Derwent Week: 200228

8/3,K/7 (Item 6 from file: 350)
DIALOG(R)File 350: Derwent WPIX

0010668964 *Drawing available*
WPI Acc no: 2001-277648/200129
XRPX Acc No: N2001-198795
Plan assistance apparatus in market place, displays analyzed input document and converted demand expression showing the condition of goods or service, that are matched
Patent Assignee: TOSHIBA KK (TOKE)
Inventor: KYOYA Y; NOGUCHI K; SEKIMOTO C

Patent Family (1 patents, 1 countries)							
Patent Number	**Kind**	**Date**	**Application Number**	**Kind**	**Date**	**Update**	**Type**
JP 2001060194	A	20010306	JP 1999234748	A	19990820	200129	B

Alerting Abstract ... ADVANTAGE - Demand expression is extracted quickly, hence goods or service satisfying a customer can be quickly provided in a market place, thereby **reducing** labor
and **time** to **a greater** extent. **The document** which**adapts** imagination **information wh ich** includes **information regarding** goods or service, is also generated... ... DESCRIPTION OF DRAWINGS - The figure the block diagram of components of plan assistance apparatus. (Drawing includes non-English language **text**). Basic Derwent Week: 200129

8/3,K/8 (Item 7 from file: 350)
DIALOG(R)File 350: Derwent WPIX

0007290094 *Drawing available*
WPI Acc no: 1995-349880/199545
Audio communication device e.g. cordless, portable telephone - uses reproduction part in which message signal is added to reproduced audio signal and amplified signal is output
Patent Assignee: TOSHIBA KK (TOKE); TOSHIBA COMMUNICATION TECHNOLOGY (TOKE)
Inventor: MATSUZAKI N; TAKENAKA A

Patent Family (1 patents, 1 countries)							
Patent Number	**Kind**	**Date**	**Application Number**	**Kind**	**Date**	**Update**	**Type**
JP 7240786	A	19950912	JP 199429198	A	19940228	199545	B

...**uses reproduction part in which message signal is added to reproduced audio signal and amplified signal is outputAlerting Abstract** ...A **message** signal showing the index information corresponding to the code data is formed. The**message** signal is added to the reproduction audio signal and the amplified signal is output by a

reproduction part... ...ADVANTAGE -
Reduces recording **information content** of **time stamp information**. **Increases** numb ers of **message**recorder per unit record capacity. Allows circuit miniaturisation. **Title Terms** .../Index Terms/Additional Words: **MESSAGE**;**Class Codes** ... Basic Derwent Week: 199545...

8/3,K/9 (Item 8 from file: 350)
DIALOG(R)File 350: Derwent WPIX

0002518163
WPI Acc no: 1982-E9820E/198217
Digital automatic common timing system - has primary clock with intermediate outputs from frequency divider to signal register and clock and code sequences shaper
Patent Assignee: PENZA POLY (PEPO)
Inventor: BORISOV Y U D; BORISOVA L S; SHLYANDIN V M

Patent Family (1 patents, 1 countries)							
Patent Number	**Kind**	**Date**	**Application Number**	**Kind**	**Date**	**Update**	**Type**
SU 847262	B	19810717	SU 2825336	A	19791008	198217	B

Alerting Abstract ...Automatic common timing system contg. a primary clock with crystal oscillator (1), frequency-divider (2), scalers (3), digital indicators (4) and a parallel to series **time-code converter** (5) has **greater** certainty in transmitting chronometric **information** in coded form to secondary clocks (9... ...with pulse-amplitude manipulation. Unproductive expenditure of time is reduced since secondary clocks no longer indicate each digit of received information in pauses between code **messages**. Basic Derwent Week: 198217

8/3K/1 (Item 1 from file: 348)
00564803
Tape recorder having information recorded by a rotary head and reproduced by a stationary head.
Patent Assignee:
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	Country	Number	Kind	Date	
Patent	EP	562572	A2	19930929	(Basic)
Patent	EP	562572	A3	19940601	
Application	EP	93104850		19930324	
Priorities	US	858740		19920327	

Specification: ...flux also decreases. This, in turn, causes the SNR to decrease, making it increasingly more difficult to recover data.
There also exists a need to **increase** the amount of **data** which may be recorded on a given size of tape so that elimination of the **time code** track would permit **increase** of the length of recorded **information** tracks. One technique proposed for eliminating the longitudinal time code track is disclosed in US-A-4,167,028. Therein is described a method of... ...technique disclosed in US-A-4,663,678 provides for digital time code information being recorded interspersed on the same data track as analog audio **message** signals. Both of these techniques are disadvantageous in requiring the use of a longitudinal track. Another technique for recording time code information in either the...

8/3K/2 (Item 1 from file: 349)
DIALOG(R)File 349: PCT FULLTEXT

01357270
CONSISTENT SET OF INTERFACES DERIVED FROM A BUSINESS OBJECT MODEL
Patent Applicant/Patent Assignee:

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	Country	Number	Kind	Date
Patent	WO	200638924	A2-A3	20060413
Application	WO	2005US21481		20050617

	Country	Number	Kind	Date
Priorities	US	2004581252		20040618
	US	2004582949		20040625
	US	2005656598		20050225
	US	2005669310		20050407
	US	2005145464		20050603
	WO	2005US19961		20050603

Detailed Description:
...calendar representation of a particular day. The Built-In Data Type of Date is xsd:date and a restriction is length=10. Time is a **time stamp**, accurate to the second, of a particular **time**. The Built-In Data Type for **Time** is xsd:time.

The coordinated world time or coordinated universal time (UTC) is currently the uniform basis for time specifications that are used internationally. It...specifies the language for written
correspondence. For CorrespondenceLanguageCode 4040a, the Category is Element 4040b, the Object Class is Communication 4040c, the Property is Correspondence Language **Code** 4040d, the Representation/Association is Code 4040e, the Type is GDT 4040f, and the Type Name is LanguageCode 4040g. The Cardinality may be zero or...

8/3K/3 (Item 2 from file: 349)
DIALOG(R)File 349: PCT FULLTEXT

01329846
CONSISTENT SET OF INTERFACES DERIVED FROM A BUSINESS OBJECT MODEL
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	Country	Number	Kind	Date

	Country	Number	Kind	Date
Patent	WO	200612160	A2-A3	20060202
Application	WO	2005US22137		20050624
Priorities	US	2004582949		20040625
	US	2005145464		20050603
	WO	2005US19961		20050603
	WO	2005US21481		20050617
	US	2005155368		20050617

Detailed Description:
...The representation term for the CCT ElectronicAddress 2900 is ElectronicAddress.

In certain embodiments, CCT ElectronicAddress 2900 is not used as a reference component for binary **data** that is sent as an**additional** MIME attachment. The CCT BinaryObject 2900 is available for this purpose.

(f) Identifier
A CCT Identifier 3000 is a unique identification of an object within... ...response to individual messages in bilateral negotiation processes between communication partners.

In an embodiment, GDT AcceptanceStatusCode 3600 is a proprietary selection from the UN/EDIFACT **code** list DE 4343. Addition of codes to this selection from the code list may require the approval of the Process Integration Council (PIC).

66
(b...Regulations Code 10924, the Category is Element 10926, the Object Class is Dangerous Goods 10928, the Property is Regulations 10930, the Representation/Association term is **Code** 10932, the Type term is GDT 10934, the Type Name term is Dangerous Goods Regulation Code 1093 6, the Length is from one to three ...

8/3K/4 (Item 3 from file: 349)
DIALOG(R)File 349: PCT FULLTEXT

01215341
TIMING MECHANISM AND DIRECT MESSAGING FOR ELECTRONIC TRADING PLATFORM
Patent Applicant/Inventor:
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Legal Representative:

- **MILLER SHEHAN Deborah(et al)(agent)**
  Fried, Frank, Harris, Shriver & Jacobson LLP, 1001 Pennsylvania Ave., NW, Suite 800, Wasington, DC 2004-2505; US

	Country	Number	Kind	Date
Patent	WO	200522363	A2-A3	20050310
Application	WO	2004US28620		20040902
Priorities	US	2003499673		20030902

Detailed Description:
TEVIIING MECHANISM AND DIRECT **MESSAGING** FOR
ELECTRONIC TRADING PLATFORM
TECM'qICAL FIELD
The present invention relates to systems for trading financial instruments.

BACKGROUNDART
Financial markets function to bring together buyers... ...people have increasingly favored electronic trading systems over the older, manual methods of trading. Financial markets favor electronic trading systems as electronic trading systems offer**reduced** labor costs, **increased** accuracy,
real **time market information** and **greater** versatility in communications.

Electronic trading systems are well known in the art. For example, U.S. Patent No.

8/3K/7 (Item 6 from file: 349)
DIALOG(R)File 349: PCT FULLTEXT

00388693
A MULTIPROCESSING SYSTEM HAVING PROCESSES THAT SHARE OBJECTS
Patent Applicant/Patent Assignee:

- **SUPERNAW-ISSEN Daniel Aaron**
- **McCARTNEY Michael David**

Inventor(s):

- **SUPERNAW-ISSEN Daniel Aaron**
- **McCARTNEY Michael David**

	Country	Number	Kind	Date
Patent	WO	9729436	A1	**19970814**
Application	WO	97US2142		19970204
Priorities	US	96599050		19960209
	US	96599053		19960209
	US	96599054		19960209

Detailed Description:
...has been received, the method proceeds to step 180 where the process updates its current causal time stamp based on information in the object grant.

Updating the current causal **time stamp** will be discussed in **greater detail** with reference to Figure 5. Once the current causal time stamp is updated, the method proceeds to step 182 wherein the process invalidates any old ... ...Figure 6.

The method then continues to step 184 wherein the process updates its possession set to include the object received via the object grant **message**. In order to provide a weak consistency model with read-only objects, the process does not take ownership of the read-only objects but instead...

Potential References 13615419

8/9/7 (Item 6 from file: 349)
DIALOG(R)File 349: PCT FULLTEXT

00388693

A MULTIPROCESSING SYSTEM HAVING PROCESSES THAT SHARE OBJECTS
Patent Applicant/Patent Assignee:
- **SUPERNAW-ISSEN Daniel Aaron**
- **McCARTNEY Michael David**

Inventor(s):
- **SUPERNAW-ISSEN Daniel Aaron**
- **McCARTNEY Michael David**

	Country	Number	Kind	Date
Patent	WO	9729436	A1	**19970814**
Application	WO	97US2142		19970204
Priorities	US	96599050		19960209
	US	96599053		19960209
	US	96599054		19960209

English Abstract:
A multiprocessing system that shares objects among a group of processes without centralized control of the objects may be accomplished by using a causal time stamp (706) for conveyance of information between members of group of processes. When a process receives an object request (408) from another process, wherein the objects request (408) includes identity (394, 396, 398) of the process requesting the object, a request causal time stamp (708), and the objects being requested, the receiving process updates its current causal time stamp and grant causal list.
DETAILED DESCRIPTION OF THE DRAWINGS
The predetermined total ordering includes a causal connection order and predetermined ordti- will 'Oe discussed in ureater deta-i'l below.

Once the grant causal lists have been updated, the receiving process determines whether it has one of the needed objects being requested and the request is of a higher priority. If so, the receiving process generates a grant message for the requesting process.

The grant message includes a grant causal time stamp which is reflective of the current causal time stamp of the receiving process and the objects being granted. When the requesting process receives the object grant. it updates its possession set of objects to include the newly received objects and updates its current causal time stamp. If the

possession set includes all of the needed objects, the requesting process then utilizes the objects as needed.

8/9/2 (Item 1 from file: 350)
DIALOG(R)File 350: Derwent WPIX

0015589284 *Drawing available*
WPI Acc no: 2006-153449/200616
XRPX Acc No: N2006-132573
Communication device for distributed control system, has communication controller automatically storing time stamp values in response to event pulses corresponding to events associated with received and transmittedmessages
Patent Assignee: BENSON R R (BENS-I); FISHER-ROSEMOUNT SYSTEMS INC (ROEC); FRANCHUK B A (FRAN-I)
Inventor: BENSON R R; FRANCHUK B A; BENSON R; FRANCHUK B

Patent Family (9 patents, 110 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20060026314	A1	20060202	US 2004903317	A	20040730	200616	B
WO 2006020278	A2	20060223	WO 2005US25506	A	20050715	200616	E
EP 1784739	A2	20070516	EP 2005773007	A	20050715	200734	E
			WO 2005US25506	A	20050715		
JP 2008508796	W	20080321	WO 2005US25506	A	20050715	200823	E
			JP 2007523634	A	20050715		
CN 101390072	A	20090318	CN 200580032849	A	20050715	200925	E
			WO 2005US25506	A	20050715		
US 7689687	B2	20100330	US 2004903317	A	20040730	201023	E
JP 4847955	B2	20111228	WO 2005US25506	A	20050715	201203	E
			JP 2007523634	A	20050715		
WO 2006020278	A3	20070301	WO 2005US25506	A	20050715	201224	E
CN 101390072	B	20120530	CN 200580032849	A	20050715	201257	E
			WO 2005US25506	A	20050715		

Alerting Abstract US A1
NOVELTY - A medium attachment unit (MAU) receives and transmits **messages** on communication medium. A CPU processes data in received **messages** and creates data to be contained in **messages** to be transmitted. A communication controller interfacing between MAU and CPU, produces event pulses corresponding to events associated with received and transmitted **messages** and automatically stores time stamp values in response to event pulses.
DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

1. method of time stamping **messages**; and

2. device for time stamping **messages**.

USE - For use in field instruments and other devices e.g. analytical equipment, silicon pressure sensor, capacitive pressure sensor, resistive temperature detector, thermocouple, strain gauge, limit switch, on/off switch, flow transmitter, pressure transmitter, capacitance level switch, weigh scale, transducer, valve positioner, valve controller, actuator, solenoid and indicator light of process control systems and distributed control system (DCS) in industrial plant, for communicating **messages**comprising secondary process variables, diagnostic information e.g. sensor, device, wiring and process diagnostics, operating temperature, sensor temperature, calibration information, device identification (ID) number, materials of construction, configuration or programming information over communication medium.
ADVANTAGE - Automatic time stamping in communication controller, eliminates the software overhead required to do all the calculations and encoding of **time stamp data** and greatly **increases** accuracy of **time stamp** values. Frees the application processor or CPU to perform other functions, since communication controller performs processing of **messages** and timer management.

11/5/6 (Item 2 from file: 60)
DIALOG(R)File 60: ANTE: Abstracts in New Tech & Engineer

0001943543 IP Accession No: 20081897044
Method and system for prevention of network denial-of-service attacks

Grimm, Martin; Barfield, Brad; Fritzges, Eric; Prasad, Hema; Branum Jr, Robert R
, USA
Publisher Url: http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&u =/netaht ml/PTO/search-adv.htm&r=1&p=1&f=G&l=50&d=PTXT&S1=74 24741.PN.&OS=pn/7424741&RS=PN/7424741

Document Type: Patent
Record Type: Abstract
Language: English
File Segment: ANTE: Abstracts in New Technologies and Engineering

Abstract:
An approach for preventing denial-of-service attacks on Secure Sockets Layer ('SSL') protocol is described. Queues are generated for handshake state connections and data transmission connections. A connection object representing a new SSL connection is time-stamped as it enters the handshake portion of the SSL protocol. A connection pointer to the connection object is placed at the head of the handshake queue. As new SSL **messages** are transferred between client and SSL server, the **time-stamp** is **updated** when the entire **message** is received, the connection pointer is repositioned to the head of the queue. A timer event periodically surveys the queues. If connection packet transmission gaps remain below a specified maximum handshake gap **time**, a connection is allowed to **progress** to the **data** transmission state. If any connection **exceeds**the **specified** gap **time**, the SSL connection is dropped.

Descriptors: Joints; Queues; **Messages**; Data transmission; Timing devices; Sockets ; Packet transmission; United States; Servers; Gaps; Networks; Surveys

Inventors: **Grimm; Martin** (Suwanee, GA)**, Barfield; Brad** (Gainesville, GA)**, Fritzges; Eric** (Austell, GA)**, Prasad; Hema** (Alpharetta, GA)**, Branum, Jr.; Robert R.** (Roswell, GA)

Assignee: **Cisco Technology, Inc.** (San Jose, CA)

Appl. No.: **10/152,541**

Filed: **May 20, 2002**

8/9/3 (Item 2 from file: 350)
DIALOG(R)File 350: Derwent WPIX

0013660944 *Drawing available*
WPI Acc no: 2003-757198/200371
XRPX Acc No: N2003-606787
Video signal format inversion method, involves attaching information indicating frame position of video signal whose video data varied due to format conversion to time code signal corresponding to video signal
Patent Assignee: MATSUSHITA DENKI SANGYO KK (MATU); MATSUSHITA ELECTRIC IND CO LTD (MATU)
Inventor: HOSODA T; SHIMAMURA Y; UENO M; UJI K; URO K

Patent Family (5 patents, 29 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2003079685	A1	20030925	WO 2003JP2977	A	20030313	200371	B
JP 2003274370	A	20030926	JP 200276104	A	20020319	200373	E
EP 1487209	A1	20041215	EP 2003710333	A	20030313	200482	E
			WO 2003JP2977	A	20030313		
US 20050162546	A1	20050728	WO 2003JP2977	A	20030313	200550	E
			US 2004508051	A	20040917		
US 7310117	B2	20071218	WO 2003JP2977	A	20030313	200802	E
			US 2004508051	A	20040917		

Alerting Abstract WO A1
NOVELTY - The information indicating synchronism state between the frame conversion period at the time of a video signal format conversion and a time code process, and frame position of the video signal whose video data varied due to the conversion, are attached to and transmitted along with the time code signal corresponding to the video signal. The time code signal is utilized for inversion of the video signal.
DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

1. a time code signal transmission method; and
2. a time code transmitting apparatus.

USE - For format inversion of video signal.
ADVANTAGE - Relationship between the frame position and time code is grasped precisely. Inversion is precisely implemented.

Original Abstract:

When a time code signal corresponding to an image signal, to which a format conversion changing the number of frames per second is executed, is transmitted, information indicating a frame position where image data is changed through the format conversion in the image signal is attached to the time code signal to be transmitted. Alternatively, information indicating a synchronous state between frame conversion cycles in the format conversion and time code progression is attached to the time code signal. In the foregoingmanner, a relationship between the frame position and the time code can be accurately grasped. Further, a secondary conversion (inverse conversion) is accurately executed to the image signal by means of the time code signal.

Claim:

1. A time code signal transmission method for transmitting a time code signal corresponding to an image signal, to which a format conversion changing the number of frames per second is executed to, wherein

   information indicating a frame position where image data is changed in the image signal through the format conversion is attached to the time code signal to be transmitted.

Search Strategy 13615419

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File 347:JAPIO Dec 1976-2012/OCT(Updated 20130130)
         (c) 2013 JPO & JAPIO
File 350:Derwent WPIX 1963-2013/UD=201311
         (c) 2013 Thomson Reuters
Set     Items   Description
S1    3779236   (TEXT? OR SMS OR SHORT()MESSAGE()SERVICE OR IM OR IMESSAGE?
              ? OR I(1W)MESSAGE? ? OR BBM OR MMS OR MESSAG?)
S2      36703   (TIMECOD? OR TIMESTAMP? OR TIMEMARK? OR TIMEFLAG? OR (TIME?
              ?)(1W)(COD? OR STAMP? OR MARK? OR FLAG?))
S3       5318   S2(5N)(CHANG? OR ALTER? OR MODIF? OR ADJUST? OR UPDAT? OR -
             REWRIT? OR REWRITTEN OR CONVER? OR TRANSFORM? OR INCREAS? OR -
             DECREAS? OR REDUC? OR ENLARG? OR GROW? OR SHRINK? OR REVIS?)
S4    1734599   (DETAIL? OR PERSONALIZ? OR SPECIFI? OR DATA OR DATUM OR IN-
             FORMATION OR CONTENT? ? OR INFO OR DOCUMENT? ? OR RECORD? ? OR
              OBJECT? ?)(5N)(EXTRA OR ADDITIONAL? OR EXCESS? OR RESERVE OR
             RESERVES OR MORE OR ADDED OR ANOTHER OR GREATER OR HIGHER OR -
             MORE OR EXCEED??? OR ENLARG? OR INCREAS? OR EXPAND? OR MAGNIF?
              OR STRETCH? OR EXTEND? OR LARGER OR LARGE OR BIG OR BIGGER OR
              RAIS? OR GROW? OR GREW OR GAIN? OR AMASS? OR INFLAT? OR BOOS-
             T? OR INCREMENT? OR HIGH?)
S5        235   S3(7N)S4
S6    1214724   (TIME? ? OR CLOCKING? ? OR INTERVAL OR INTERVALS OR PERIOD
             OR PERIODS OR SEGMENT OR SEGMENTS OR PORTION OR PORTIONS OR P-
             HASE? ? OR CLOCK? ? OR DAYLIGHT(1W)SAVINGS OR DST OR ZONE? ?)-
             (5N)(PASS? OR PROGRESS OR ADVANCE OR ADVANCING OR COURSE? ? OR
              DEVELOPMENT OR EVOLUTION OR EVOLVEMENT OR GROWTH OR HEADWAY -
             OR IMPROVEMENT OR INCREASE? ? OR JOURNEY? ? OR MOVEMENT? ? OR
             PASSAGE OR PROGRESSION OR PROMOTION OR RATE? ? OR EXCEED? OR -
             GREAT OR GREATER OR BEYOND OR TOP OR TOPS OR TOPPING OR TOPPED
              OR OVERGROW? OR OVERSTEP? OR OVERTAK? OR OVERTOOK OR (OVER(1-
             W)(STEP OR STEPPING OR STEPPED OR STEPS OR TAKE OR TOOK OR TA-
             KES OR TAKING)) OR SURPASS? OR TRANSCEND? OR GROW OR GROWS OR
             GROWING OR GREW OR PAST)
S7         38   S1 AND S5 AND S6
S8          9   (S7 AND PY=1963:2004) OR (S7 AND AY=1963:2004 AND AC=US)

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File  65:Inside Conferences 1993-2013/Feb 20
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         (c) 2013 The IET
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File  56:Computer and Information Systems Abstracts 1966-2013/Feb
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File  60:ANTE: Abstracts in New Tech & Engineer 1966-2013/Mar
         (c) 2013 CSA.
Set     Items   Description
S1    2747006   (TEXT? OR SMS OR SHORT()MESSAGE()SERVICE OR IM OR IMESSAGE?
              ? OR I(1W)MESSAGE? ? OR BBM OR MMS OR MESSAG?)
S2      95798   (TIMECOD? OR TIMESTAMP? OR TIMEMARK? OR TIMEFLAG? OR (TIME?
              ?)(1W)(COD? OR STAMP? OR MARK? OR FLAG?))
S3      11766   S2(5N)(CHANG? OR ALTER? OR MODIF? OR ADJUST? OR UPDAT? OR -
             REWRIT? OR REWRITTEN OR CONVER? OR TRANSFORM? OR INCREAS? OR -
             DECREAS? OR REDUC? OR ENLARG? OR GROW? OR SHRINK? OR REVIS?)
S4    3777978   (DETAIL? OR PERSONALIZ? OR SPECIFI? OR DATA OR DATUM OR IN-
             FORMATION OR CONTENT? ? OR INFO OR DOCUMENT? ? OR RECORD? ? OR
              OBJECT? ?)(5N)(EXTRA OR ADDITIONAL? OR EXCESS? OR RESERVE OR
             RESERVES OR MORE OR ADDED OR ANOTHER OR GREATER OR HIGHER OR -
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              OR STRETCH? OR EXTEND? OR LARGER OR LARGE OR BIG OR BIGGER OR
              RAIS? OR GROW? OR GREW OR GAIN? OR AMASS? OR INFLAT? OR BOOS-
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S5        203   S3(7N)S4
S6    2566349   (TIME? ? OR CLOCKING? ? OR INTERVAL OR INTERVALS OR PERIOD
             OR PERIODS OR SEGMENT OR SEGMENTS OR PORTION OR PORTIONS OR P-
             HASE? ? OR CLOCK? ? OR DAYLIGHT(1W)SAVINGS OR DST OR ZONE? ?)-
             (5N)(PASS? OR PROGRESS OR ADVANCE OR ADVANCING OR COURSE? ? OR
              DEVELOPMENT OR EVOLUTION OR EVOLVEMENT OR GROWTH OR HEADWAY -
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             PASSAGE OR PROGRESSION OR PROMOTION OR RATE? ? OR EXCEED? OR -
             GREAT OR GREATER OR BEYOND OR TOP OR TOPS OR TOPPING OR TOPPED
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             KES OR TAKING)) OR SURPASS? OR TRANSCEND? OR GROW OR GROWS OR
             GROWING OR GREW OR PAST)
S7          3   S1 AND S5 AND S6
S8          2   RD  (unique items)
S9         25   S1 AND S3 AND S4 AND S6
S10        12   S9 NOT PY=2005:2013
S11         6   RD  (unique items)

File 348:EUROPEAN PATENTS 1978-201302
         (c) 2013 European Patent Office
File 349:PCT FULLTEXT 1979-2013/UB=20130214|UT=20130207
         (c) 2013 WIPO/Thomson
Set     Items   Description
S1    1756086   (TEXT? OR SMS OR SHORT()MESSAGE()SERVICE OR IM OR IMESSAGE?
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S2      61844   (TIMECOD? OR TIMESTAMP? OR TIMEMARK? OR TIMEFLAG? OR (TIME?
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S3      10657   S2(5N)(CHANG? OR ALTER? OR MODIF? OR ADJUST? OR UPDAT? OR -
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            DECREAS? OR REDUC? OR ENLARG? OR GROW? OR SHRINK? OR REVIS?)
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             OR STRETCH? OR EXTEND? OR LARGER OR LARGE OR BIG OR BIGGER OR
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            T? OR INCREMENT? OR HIGH?)
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S6    1126391   (TIME? ? OR CLOCKING? ? OR INTERVAL OR INTERVALS OR PERIOD
            OR PERIODS OR SEGMENT OR SEGMENTS OR PORTION OR PORTIONS OR P-
            HASE? ? OR CLOCK? ? OR DAYLIGHT(1W)SAVINGS OR DST OR ZONE? ?)-
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S7         15   S1 (50N) S5 (50N)S6
S8          7   (S7 AND PY=1978:2004) OR (S7 AND (AC=US/PR) AND AY=1978:20-
            04)
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United States Patent and Trademark Office
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BIB DATA SHEET

CONFIRMATION NO. 2640

SERIAL NUMBER	FILING or 371(c) DATE / RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
13/615,419	09/13/2012	709	2457	70314/01061

APPLICANTS

Gerhard D. Klassen, Waterloo, CANADA;
Christopher R. Wormald, Kitchener, CANADA;
Lawrence E. Kuhl, Waterloo, CANADA;

**** CONTINUING DATA ***************************

This application is a CON of 13/111,675 05/19/2011 PAT 8,301,713
which is a CON of 10/944,925 09/20/2004 PAT 7,970,849
which claims benefit of 60/504,379 09/19/2003

**** FOREIGN APPLICATIONS ***************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ****

09/24/2012

Foreign Priority claimed	35 USC 119(a-d) conditions met	Verified and Acknowledged	Met after Allowance	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
☐ Yes ☑ No	☐ Yes ☑ No	/MICHAEL C LAI/ Examiner's Signature	☐ mcl Initials	CANADA	7	17	3

ADDRESS

Blake, Cassels & Graydon LLP
199 BAY STREET , SUITE 4000
COMMERCE COURT WEST
TORONTO, ON M5L 1A9
CANADA

TITLE

Handheld Electronic Device and Associated Method Providing Time Data in a Messaging Environment

FILING FEE RECEIVED	FEES: Authority has been given in Paper	
1250	No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

BIB (Rev. 05/07).

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13615419	KLASSEN ET AL.
	Examiner	**Art Unit**
	MICHAEL C LAI	2457

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	02/25/2013								
	1	✓								
	2	✓								
	3	✓								
	4	✓								
	5	✓								
	6	✓								
	7	✓								
	8	✓								
	9	✓								
	10	✓								
	11	✓								
	12	✓								
	13	✓								
	14	✓								
	15	✓								
	16	✓								
	17	✓								

2400 Search Request

Your 2400 Search Request has been emailed to STIC's EIC2100.

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Name: LAI MICHAEL C
Organization: **TC 2400**
Art Unit: **2457**
Employee Number: **83816**
Office Location: **RND-4A81**
Phone Number: **(571)270-3236**
Email: michael.lai@uspto.gov

Request Detail ----------

Attachment: **No**

Case/Application number: **13/615,419** PALM
Priority App. Filing Date: **09-20-2004**
Format for Search Results: **EMAIL**
Board of Appeals Case?: **No**

Synonyms:
instant messages, conversation, time or time stamp, display, time change

Describe this invention in your own words.:
A method of displaying an instant messaging conversation on a display of an electronic device, the method comprising:

displaying a conversation of instant messages;

displaying a first time information for an instant message in the conversation in response to a first input;

changing the first time information for the instant message to a second time information as time progresses; and

displaying the second time information in response to a second input.

For exmple:

"2:44 pm" ==> as time progresses to next day: "2:44 pm yesterday" or "2:44 pm Thursday" or "2:44 pm September 17, 2004"

Terms to avoid:

Additional Comments:

This is a fast and focus search request.

See Fig. 4 and claim 1.

Request Date: **Wednesday, February 20, 2013 8:30 AM**

Make Another Request

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.L./

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 3

Complete if Known	
Application Number	13/615,419
Filing Date	September 13, 2012
First named Inventor	KLASSEN, Gerhard D.
Art Unit	2859
Examiner Name	Not yet assigned
Attorney Docket Number	70314/01061

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-2002/0075303 A1	06-20-2002	THOMPSON et al.	
		US-2003/0134616 A1	07-17-2003	THOMSEN et al.	
		US-2002/0087649 A1	07-04-2002	HORVITZ	
		US-2003/0001890 A1	01-02-2003	BRIN	
		US-2003/0060240 A1	03-27-2003	GRAHAM et al.	
		US-2003/0104841 A1	06-05-2003	YAMAMOTO	
		US-2004/0137967 A1	07-15-2004	BODLEY et al.	
		US-2004/0228531 A1	11-18-2004	FERNANDEZ et al.	
		US-6,301,609 B1	10-09-2001	ARAVAMUDAN et al.	
		US-6,590,529 B2	07-08-2003	SCHWOEGLER et al.	
		US-6,636,243 B1	10-21-2003	MACPHAIL	
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		US-7,099,700 B2	08-29-2006	HWANG et al.	
		US-7,111,044 B2	09-19-2006	LEE	
		US-7,181,497 B1	02-20-2007	APPELMAN et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]	Number[4]	Kind-Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
		WO	2004/064362	A1	07-29-2004	GN NETCOM A/S		
		WO	02/65250	A2	08-22-2002	INVERTIX CORPORATION		
		WO	01/30091	A1	04-26-2001	MOTOROLA, INC.		
		WO	02/21413	A2	03-14-2002	ZAPLET, INC.		
		GB	2384150	A	07-16-2003	NEC CORPORATION		
		GB	2350746	A	12-06-2000	NEC CORPORATION		

Examiner Signature	/Michael Lai/	Date Considered	02/19/2013

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 2 of 3

Complete if Known	
Application Number	13/615,419
Filing Date	September 13, 2012
First named Inventor	KLASSEN, Gerhard D.
Art Unit	2859
Examiner Name	Not yet assigned
Attorney Docket Number	70314/01061

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		7,236,472 B2	06-26-2007	LAZARIDIS et al.	
		7,305,441 B2	12-04-2007	MATHEWSON II et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]	Number[4]	Kind-Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
		EP	1176840	A1	01-30-2002	MICROSOFT CORPORATION		
		EP	0743762	A2	11-20-1996	NEC CORPORATION		
		JP	200311145	A	12-26-1990	MATSUSHITA ELECTRIC WORKS LTD		

Examiner Signature	/Michael Lai/	Date Considered	02/19/2013

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Sheet 3 of 3

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Application Number	13/615,419
Filing Date	September 13, 2012
First named Inventor	KLASSEN, Gerhard D.
Art Unit	2859
Examiner Name	Not yet assigned
Attorney Docket Number	70314/01061

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalogue, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T[2]
		LASTORIA, Gianluca; Search Report from corresponding European Application No. 10172832.7; search completed October 1, 2010	
		VARMA, S.; Search Report from corresponding PCT Application No. PCT/CA2004/001712; search completed December 1, 2004	

Examiner Signature	/Michael Lai/	Date Considered	02/19/2013

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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/615,419	09/13/2012	Gerhard D. Klassen	70314/01061

CONFIRMATION NO. 2640

91704
Blake, Cassels & Graydon LLP
199 BAY STREET , SUITE 4000
COMMERCE COURT WEST
TORONTO, ON M5L 1A9
CANADA

PUBLICATION NOTICE

Title: Handheld Electronic Device and Associated Method Providing Time Data in a Messaging Environment

Publication No.US-2013-0002681-A1
Publication Date:01/03/2013

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The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

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Sheet 1 of 3

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		US-2002/0087649 A1	07-04-2002	HORVITZ	
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		US-2004/0137967 A1	07-15-2004	BODLEY et al.	
		US-2004/0228531 A1	11-18-2004	FERNANDEZ et al.	
		US-6,301,609 B1	10-09-2001	ARAVAMUDAN et al.	
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		US-6,636,243 B1	10-21-2003	MACPHAIL	
		US-6,889,063 B2	05-03-2005	YAMADA	
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		US-7,099,700 B2	08-29-2006	HWANG et al.	
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		WO	02/65250	A2	08-22-2002	INVERTIX CORPORATION		
		WO	01/30091	A1	04-26-2001	MOTOROLA, INC.		
		WO	02/21413	A2	03-14-2002	ZAPLET, INC.		
		GB	2384150	A	07-16-2003	NEC CORPORATION		
		GB	2350746	A	12-06-2000	NEC CORPORATION		

Examiner Signature		Date Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] **Applicants' unique citation designation number** (optional). [2] See Kinds Codes of USPTO Patent Documents at www.uspto gov or MPEP 901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

22296444.1

PTO/SB/08A (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 2 of 3

Complete if Known	
Application Number	13/615,419
Filing Date	September 13, 2012
First named Inventor	KLASSEN, Gerhard D.
Art Unit	2859
Examiner Name	Not yet assigned
Attorney Docket Number	70314/01061

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		7,236,472 B2	06-26-2007	LAZARIDIS et al.	
		7,305,441 B2	12-04-2007	MATHEWSON II et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3]	Number[4]	Kind-Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
		EP	1176840	A1	01-30-2002	MICROSOFT CORPORATION		
		EP	0743762	A2	11-20-1996	NEC CORPORATION		
		JP	200311145	A	12-26-1990	MATSUSHITA ELECTRIC WORKS LTD		

Examiner Signature		Date Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] **Applicants' unique citation designation number** (optional). [2] See Kinds Codes of USPTO Patent Documents at www.uspto gov or MPEP 901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

22296444.1

PTO/SB/08A (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 3 of 3

Complete if Known	
Application Number	13/615,419
Filing Date	September 13, 2012
First named Inventor	KLASSEN, Gerhard D.
Art Unit	2859
Examiner Name	Not yet assigned
Attorney Docket Number	70314/01061

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalogue, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T[2]
		LASTORIA, Gianluca; Search Report from corresponding European Application No. 10172832.7; search completed October 1, 2010	
		VARMA, S.; Search Report from corresponding PCT Application No. PCT/CA2004/001712; search completed December 1, 2004	

Examiner Signature		Date Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] **Applicants' unique citation designation number** (optional). [2] Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C> 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

22296444.1

Electronic Acknowledgement Receipt	
EFS ID:	14038966
Application Number:	13615419
International Application Number:	
Confirmation Number:	2640
Title of Invention:	Handheld Electronic Device and Associated Method Providing Time Data in a Messaging Environment
First Named Inventor/Applicant Name:	Gerhard D. Klassen
Customer Number:	91704
Filer:	Brett Joseph Slaney/Judith Martin
Filer Authorized By:	Brett Joseph Slaney
Attorney Docket Number:	70314/01061
Receipt Date:	22-OCT-2012
Filing Date:	13-SEP-2012
Time Stamp:	12:11:21
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		11144-US-CNT5_IDS.pdf	291174 bc6ec2691086ac125784c66f34f2d774e3eb cbe6	yes	5

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Transmittal Letter	1	2
	Information Disclosure Statement (IDS) Form (SB08)	3	5
Warnings:			
Information:			
	Total Files Size (in bytes):	291174	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Appl. No.:	**13/615,419**
Applicant:	**KLASSEN, Gerhard D. et al.**
Filed:	**September 13, 2012**
Title:	**Handheld Electronic Device and Associated Method Providing Time Data in a Messaging Environment**
Art Unit:	**2859**
Examiner:	**Not yet assigned**
Docket No.:	**70314/01061**

Mail Stop Amendment
U.S. Patent & Trademark Office
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to the duty to disclose under 37 CFR §1.56, Applicant submits herewith a Form PTO/SB/08 listing references of which the Applicant is aware and which are brought to the attention of the Examiner. A copy of each of the foreign patent and non-patent literature documents listed on the enclosed Form has previously been submitted to the Patent Office in connection with the parent case – U.S. Patent Application No. 13/111,675. Accordingly, and as provided for under 37 CFR §1.98(d)(1) and §1.98(d)(2), further copies are not included with this submission.

Pursuant to 35 USC §120, this application relies on the earlier filing date(s) of the following prior application(s):

Serial Number	Filing Date
13/111,675	May 19, 2011
10/944,925	September 20, 2004

The filing of this IDS shall not be construed as a representation that a search has been made, an admission that the information cited is, or is considered to be, material for patentability, or

that no other material information exists. This filing shall not be construed as an admission against interest in any matter.

This IDS is submitted pursuant to 37 CFR §1.97(b) and, accordingly, no fee is believed to be due for consideration of the documents submitted herewith.

Applicant respectfully requests consideration of the items listed and requests the Examiner to return a copy of the attached Form PTO/SB/08 after being marked as being considered by the Examiner.

Respectfully submitted,

Date: Oct. 22/12

Brett J. Slaney
Registration No. **58,772**
Agent for Applicant

BLAKE, CASSELS & GRAYDON LLP
199 Bay Street
Suite 4000, Commerce Court West
Toronto, Ontario, M5L 1A9
Canada

Tel 416-863-2518
Fax 416-863-2653

BSL/jm

(✓) encl.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/615,419	09/13/2012	Gerhard D. Klassen	70314/01061

CONFIRMATION NO. 2640

91704
Blake, Cassels & Graydon LLP
199 BAY STREET , SUITE 4000
COMMERCE COURT WEST
TORONTO, ON M5L 1A9
CANADA

POA ACCEPTANCE LETTER

OC000000056726982

Date Mailed: 09/28/2012

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 09/13/2012.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/dberios/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
13/615,419	09/13/2012	2859	1250	70314/01061	17	3

CONFIRMATION NO. 2640

91704
Blake, Cassels & Graydon LLP
199 BAY STREET , SUITE 4000
COMMERCE COURT WEST
TORONTO, ON M5L 1A9
CANADA

FILING RECEIPT

OC000000056726999

Date Mailed: 09/28/2012

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Inventor(s)

Gerhard D. Klassen, Waterloo, CANADA;
Christopher R. Wormald, Kitchener, CANADA;
Lawrence E. Kuhl, Waterloo, CANADA;

Applicant(s)

Gerhard D. Klassen, Waterloo, CANADA;
Christopher R. Wormald, Kitchener, CANADA;
Lawrence E. Kuhl, Waterloo, CANADA;

Assignment For Published Patent Application

Research In Motion Limited, Waterloo, CANADA

Power of Attorney: The patent practitioners associated with Customer Number 91704

Domestic Priority data as claimed by applicant

This application is a CON of 13/111,675 05/19/2011
which is a CON of 10/944,925 09/20/2004 PAT 7970849
which claims benefit of 60/504,379 09/19/2003

Foreign Applications (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.)

If Required, Foreign Filing License Granted: 09/24/2012
The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 13/615,419**
Projected Publication Date: 01/03/2013
Non-Publication Request: No

Early Publication Request: No
Title

Handheld Electronic Device and Associated Method Providing Time Data in a Messaging Environment

Preliminary Class

320

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 13/615,419

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	380
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	620
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	250
TOTAL CLAIMS (37 CFR 1.16(i))	17 minus 20 =	*			OR	x 60 =	0.00
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3 minus 3 =	*				x 250 =	0.00
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						0.00
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							0.00
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	1250

APPLICATION AS AMENDED - PART II

AMENDMENT A

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
Application Size Fee (37 CFR 1.16(s))									
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

AMENDMENT B

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
Application Size Fee (37 CFR 1.16(s))									
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

COPY FROM PRIOR APPLICATION

PTO/SB/01 (03-01)
Approved for use through 10/31/2002. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)

☑ Declaration Submitted with Initial Filing OR ☐ Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)

Attorney Docket Number	291010-00084
First Named Inventor	Gerhard D. Klassen
COMPLETE IF KNOWN	
Application Number	/
Filing Date	
Group Art Unit	
Examiner Name	

As a below named inventor, I hereby declare that:

My residence, mailing address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

HANDHELD ELECTRONIC DEVICE AND ASSOCIATED METHOD PROVIDING TIME DATA IN A MESSAGING ENVIRONMENT

(Title of the Invention)

the specification of which

☑ is attached hereto

OR

☐ was filed on (MM/DD/YYYY) ____ as United States Application Number or PCT International Application Number ____ and was amended on (MM/DD/YYYY) ____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached? YES	NO
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto:

PTO/SB/01 (03-01)
Approved for use through 10/31/2002. OMB 0651-0032
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

DECLARATION — Utility or Design Patent Application

Direct all correspondence to: ☑ Customer Number or Bar Code Label 003705 OR ☐ Correspondence address below

Name

Address

City | State | ZIP

Country | Telephone | Fax

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

NAME OF SOLE OR FIRST INVENTOR : ☐ A petition has been filed for this unsigned inventor

Given Name (first and middle [if any]): Gerhard D. | Family Name or Surname: Klassen

Inventor's Signature: Gerhard D. Klassen | Date: September 20, 2004

Residence: City: Waterloo | State: Ontario | Country: Canada | Citizenship: Canada

Mailing Address: 510 Heatherhill Place

City: Waterloo | State: Ontario | ZIP: N2T 1H7 | Country: Canada

NAME OF SECOND INVENTOR: ☐ A petition has been filed for this unsigned inventor

Given Name (first and middle [if any]): Christopher R. | Family Name or Surname: Wormald

Inventor's Signature: Chr Worm | Date: Sep 20, 2004

Residence: City: Kitchener | State: Ontario | Country: Canada | Citizenship: Canada

Mailing Address: 215 Hawkswood Drive

City: Kitchener | State: Ontario | ZIP: N2K 4J2 | Country: Canada

☑ Additional inventors are being named on the 1 supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto.

Please type a plus sign (+) inside this box → [+]

PTO/SB/02A (3-97)
Approved for use through 9/30/98. OMB 0651-0032
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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DECLARATION

ADDITIONAL INVENTOR(S)
Supplemental Sheet
Page 1 of 1

Name of Additional Joint Inventor, if any:	☐ A petition has been filed for this unsigned inventor						
Given Name (first and middle [if any])		Family Name or Surname					
Lawrence E.		Kuhl					
Inventor's Signature						Date	Sept 29/04
Residence: City	Waterloo	State	Ontario	Country	Canada	Citizenship	Canada
Post Office Address	686 Jacob Lane						
Post Office Address							
City	Waterloo	State	Ontario	ZIP	N2V 2G9	Country	Canada

Name of Additional Joint Inventor, if any:	☐ A petition has been filed for this unsigned inventor						
Given Name (first and middle [if any])		Family Name or Surname					
Inventor's Signature						Date	
Residence: City		State		Country		Citizenship	
Post Office Address							
Post Office Address							
City		State		ZIP		Country	

Name of Additional Joint Inventor, if any:	☐ A petition has been filed for this unsigned inventor						
Given Name (first and middle [if any])		Family Name or Surname					
Inventor's Signature						Date	
Residence: City		State		Country		Citizenship	
Post Office Address							
Post Office Address							
City		State		ZIP		Country	

Burden Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Please type a plus sign (+) inside this box → [+]

PTO/SB/02B (3-97)
Approved for use through 9/30/98. OMB 0651-0032
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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DECLARATION — Supplemental Priority Data Sheet

Additional foreign applications:

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached? YES	Certified Copy Attached? NO
			☐	☐	☐

Additional provisional applications:

Application Number	Filing Date (MM/DD/YYYY)
60/504,379	09/19/2003

Additional U.S. applications:

U.S. Parent Application Number	PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number *(if applicable)*

Burden Hour Statement: This form is estimated to take 0.4 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

PTO/SB/80 (11-08)
Approved for use through 11/30/2011. OMB 0651-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(b).

I hereby appoint:

☑ Practitioners associated with the Customer Number: 91704

OR

☐ Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

as attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignment documents attached to this form in accordance with 37 CFR 3.73(b).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(b) to:

☑ The address associated with Customer Number: 91704

OR

☐ Firm or Individual Name			
Address			
City		State	Zip
Country			
Telephone		Email	

Assignee Name and Address:

Research In Motion Limited
295 Phillip Street
Waterloo, Ontario N2L 3W8 CANADA

A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature	Bill Feng	Date	(519)888-7465
Name	Bill Feng	Telephone	Oct 27/09
Title	Vice President Shared Services		

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Legal OK MM

RM OK

COPY FROM PARENT-USSN 13/111,675

PTO/SB/96 (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(b)

Applicant/Patent Owner: KLASSEN, Gerhard, Dietrich et al.

Application No./Patent No.: _____ Filed/Issue Date: _____

Titled:

Research In Motion Limited , a corporation

(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.

states that it is:

1. [X] the assignee of the entire right, title, and interest in;

2. [ ] an assignee of less than the entire right, title, and interest in (The extent (by percentage) of its ownership interest is _____ %); or

3. [ ] the assignee of an undivided interest in the entirety of (a complete assignment from one of the joint inventors was made)

the patent application/patent identified above, by virtue of either:

A. [X] An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy therefore is attached.

OR

B. [ ] A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

2. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

[ ] Additional documents in the chain of title are listed on a supplemental sheet(s).

[X] As required by 37 CFR 3.73(b)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (*i.e.*, a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

Signature — May 19/11 Date

Brett J. Slaney — Agent for Assignee

Printed or Typed Name — Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

WORLDWIDE ASSIGNMENT

WHEREAS, WE, (hereinafter referred to as the "ASSIGNORS"):

GERHARD D. KLASSEN, 510 Heatherhill Place, Waterloo, Ontario, Canada, N2T 1H7
CHRISTOPHER R. WORMALD, 215 Hawkswood Drive, Kitchener, Ontario, Canada N2K 4J2
and
LAWRENCE E. KUHL, 686 Jacob Lane, Waterloo, Ontario, Canada N2V 2G9

have invented certain new and useful improvements in an invention entitled **HANDHELD ELECTRONIC DEVICE AND ASSOCIATED METHOD PROVIDING TIME DATA IN A MESSAGING ENVIRONEMENT** for which an application for United States Letters Patent was filed on September 20, 2004, Application Serial No. 10/944,925, and as further identified by Docket No. 291010-00084 and RIM Reference No. 11144-US-PAT; and

WHEREAS, **RESEARCH IN MOTION LIMITED** (hereinafter referred to as the "ASSIGNEE"), a corporation organized under the laws of the Province of Ontario, CANADA, having a place of business at 295 Phillip Street, Waterloo, Ontario, CANADA, N2L 3W8, is desirous of acquiring the full and exclusive right, title and interest in and to said application inclusive of any and all priority rights derived therefrom and the inventions therein disclosed, and in and to all Letters Patent, both United States and foreign, to be granted for said inventions.

NOW, THEREFORE, for a valuable consideration, the receipt whereof is hereby acknowledged, WE ASSIGNORS, intending to be legally bound, do hereby confirm sale, assignment, transfer, and set over, and hereby sell, assign, transfer, and set over unto the ASSIGNEE, its successors and assigns, the full and exclusive right, title and interest in and to the aforesaid application for United States Letters Patent inclusive of any and all priority rights derived therefrom, and the inventions therein disclosed, and in and to all Letters Patent and issues thereof which may be granted upon said application and in and to all Letters Patent which may be issued upon any substitutes, divisions, or continuations of said application, and in and to any and all Letters Patent which may be granted for said inventions in any other country or countries; the same to be held and enjoyed by the ASSIGNEE for its own use and behoof, and for the use and behoof of its successors and assigns, to the full end of the term or terms for which said Letters Patent and reissues thereof may be granted as fully and entirely as the same would have been held and enjoyed by us had this assignment and sale not been made;

AND WE, ASSIGNORS hereby agree to execute, upon request, any and all further papers which may be necessary or desirable to enable the ASSIGNEE, its successors and assigns, to file and prosecute said application, and any and all substitutes, divisions, or continuations thereof, and any and all reissues of the Letters Patent granted upon said application, or upon any substitutes, divisions, or continuations thereof, and any and all applications for foreign Letters Patent on said inventions; and ASSIGNORS further agree to execute any and all further papers which may be necessary or desirable to vest or perfect the title of ASSIGNEE, its successors and assigns, in and to said application and the inventions therein disclosed, and in and to any and all Letters Patent and reissues thereof, both United States and foreign, which may be granted upon said application, and any substitutes, divisions, or continuations thereof, and upon any foreign applications;

AND WE, ASSIGNORS hereby authorize and request The Commissioner of Patents to issue each and every Letters Patent to be granted upon the aforesaid application for United States Letters Patent, and upon any and all substitutes, divisions, and continuations of said application, and each and every reissue of said Letters Patent, to the ASSIGNEE, its successors and assigns, as the assignee of the entire right, title and interest therein, in accordance with this assignment.

IN WITNESS WHEREOF, this assignment has been executed below by the undersigned:

Date: August 31, 2006

GERHARD D. KLASSEN

Waterloo,
Ontario, Canada N2T 1H7

STATEMENT BY WITNESS

I, Shawel Wisebourt, whose full Post Office address is
B232 Inverhuron Cres., Waterloo, ON, N2V 2H8
(Address of Witness)

hereby declare that I was personally present and did see the above named person, personally known to me to be the person named in the Worldwide Assignment, duly sign and execute the same.

Date: August 31, 2006

(Signature of Witness)

Date: Sep 5, 2006

CHRISTOPHER R. WORMALD

Kitchener,
Ontario, Canada N2K 4J2

STATEMENT BY WITNESS

I, Raymond Reddy, whose full Post Office address is
801 - 547 Belmont ave. W.
(Address of Witness)

hereby declare that I was personally present and did see the above named person, personally known to me to be the person named in the Worldwide Assignment, duly sign and execute the same.

Date: Sep 5, 2006

(Signature of Witness)

Date: Aug 11/06

LAWRENCE E. KUHL

Waterloo,
Ontario, Canada N2V 2G9

STATEMENT BY WITNESS

I, KEIZO MARUI, whose full Post Office address is

301 - 400 PARKSIDE DR. WATERLOO, ON N2L 6E5
(Address of Witness)

hereby declare that I was personally present and did see the above named person, personally known to me to be the person named in the Worldwide Assignment, duly sign and execute the same.

Date: 11 Aug 2006

(Signature of Witness)

Electronic Patent Application Fee Transmittal

Application Number:	
Filing Date:	
Title of Invention:	Handheld Electronic Device and Associated Method Providing Time Data in a Messaging Environment
First Named Inventor/Applicant Name:	Gerhard D. Klassen
Filer:	Brett Joseph Slaney/Judith Martin
Attorney Docket Number:	70314/01061

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Utility application filing	1011	1	380	380
Utility Search Fee	1111	1	620	620
Utility Examination Fee	1311	1	250	250
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
		Total in USD ($)		**1250**

Electronic Acknowledgement Receipt	
EFS ID:	13742333
Application Number:	13615419
International Application Number:	
Confirmation Number:	2640
Title of Invention:	Handheld Electronic Device and Associated Method Providing Time Data in a Messaging Environment
First Named Inventor/Applicant Name:	Gerhard D. Klassen
Customer Number:	91704
Filer:	Brett Joseph Slaney/Judith Martin
Filer Authorized By:	Brett Joseph Slaney
Attorney Docket Number:	70314/01061
Receipt Date:	13-SEP-2012
Filing Date:	
Time Stamp:	21:05:55
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$1250
RAM confirmation Number	8464
Deposit Account	022553
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees) Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet	11144-US-CNT5_ADS.pdf	291259 2fd04d3679ee40b65a112fb51e457d815fd89d9d	no	4
Warnings:					
Information:					
This is not an USPTO supplied ADS fillable form					
2		11144-US-CNT5_Appln.pdf	786102 8934750080aeb0a44d83411d7cf9768931928c47	yes	17

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Specification	1	13
Claims	14	16
Abstract	17	17

Warnings:					
Information:					
3	Drawings-only black and white line drawings	11144-US-CNT5_Drawings.pdf	409294 4e5e796c9b88ad3a8e3918582b9a3fe9a9292c66	no	7
Warnings:					
Information:					
4	Oath or Declaration filed	11144-US-CNT6_Decln-of-inventorship.pdf	214619 47e2eddeb34dbf9f09ed9da3173893dac9858726	no	4
Warnings:					
Information:					
5		11144-US-CNT5_POA_assignee-statement.pdf	314746 b47b39fb2713f8301de00181cd16f3b34c2d1a8b	yes	5

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Power of Attorney	1	1
Assignee showing of ownership per 37 CFR 3.73(b).	2	5

Warnings:	
Information:	

6	Fee Worksheet (SB06)	fee-info.pdf	32808 ee9f0a714b96acb9a52c73d2d90917464c00e47e	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	2048828	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Electronic Acknowledgement Receipt	
EFS ID:	13742333
Application Number:	13615419
International Application Number:	
Confirmation Number:	2640
Title of Invention:	Handheld Electronic Device and Associated Method Providing Time Data in a Messaging Environment
First Named Inventor/Applicant Name:	Gerhard D. Klassen
Customer Number:	91704
Filer:	Brett Joseph Slaney/Judith Martin
Filer Authorized By:	Brett Joseph Slaney
Attorney Docket Number:	70314/01061
Receipt Date:	13-SEP-2012
Filing Date:	
Time Stamp:	21:05:55
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$1250
RAM confirmation Number	8464
Deposit Account	022553
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees) Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet	11144-US-CNT5_ADS.pdf	291259 2fd04d3679ee40b65a112fb51e457d815fd89d9d	no	4
Warnings:					
Information:					
This is not an USPTO supplied ADS fillable form					
2		11144-US-CNT5_Appln.pdf	786102 8934750080aeb0a44d83411d7cf9768931928c47	yes	17
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Specification		1	13	
	Claims		14	16	
	Abstract		17	17	
Warnings:					
Information:					
3	Drawings-only black and white line drawings	11144-US-CNT5_Drawings.pdf	409294 4e5e796c9b88ad3a8e3918582b9a3fe9a9292c66	no	7
Warnings:					
Information:					
4	Oath or Declaration filed	11144-US-CNT6_Decln-of-inventorship.pdf	214619 47e2eddeb34dbf9f09ed9da3173893dac9858726	no	4
Warnings:					
Information:					
5		11144-US-CNT5_POA_assignee-statement.pdf	314746 b47b39fb2713f8301de00181cd16f3b34c2d1a8b	yes	5
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Power of Attorney		1	1	
	Assignee showing of ownership per 37 CFR 3.73(b).		2	5	
Warnings:					
Information:					

6	Fee Worksheet (SB06)	fee-info.pdf	32808 ee9f0a714b96acb9a52c73d2d90917464c00e47e	no	2

Warnings:	
Information:	
Total Files Size (in bytes):	2048828

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Electronic Acknowledgement Receipt	
EFS ID:	13742333
Application Number:	13615419
International Application Number:	
Confirmation Number:	2640
Title of Invention:	Handheld Electronic Device and Associated Method Providing Time Data in a Messaging Environment
First Named Inventor/Applicant Name:	Gerhard D. Klassen
Customer Number:	91704
Filer:	Brett Joseph Slaney/Judith Martin
Filer Authorized By:	Brett Joseph Slaney
Attorney Docket Number:	70314/01061
Receipt Date:	13-SEP-2012
Filing Date:	
Time Stamp:	21:05:55
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$1250
RAM confirmation Number	8464
Deposit Account	022553
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees) Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet	11144-US-CNT5_ADS.pdf	291259 2fd04d3679ee40b65a112fb51e457d815fd89d9d	no	4
Warnings:					
Information:					
This is not an USPTO supplied ADS fillable form					
2		11144-US-CNT5_Appln.pdf	786102 8934750080aeb0a44d83411d7cf9768931928c47	yes	17
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Specification		1	13	
	Claims		14	16	
	Abstract		17	17	
Warnings:					
Information:					
3	Drawings-only black and white line drawings	11144-US-CNT5_Drawings.pdf	409294 4e5e796c9b88ad3a8e3918582b9a3fe9a9292c66	no	7
Warnings:					
Information:					
4	Oath or Declaration filed	11144-US-CNT6_Decln-of-inventorship.pdf	214619 47e2eddeb34dbf9f09ed9da3173893dac9858726	no	4
Warnings:					
Information:					
5		11144-US-CNT5_POA_assignee-statement.pdf	314746 b47b39fb2713f8301de00181cd16f3b34c2d1a8b	yes	5
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Power of Attorney		1	1	
	Assignee showing of ownership per 37 CFR 3.73(b).		2	5	
Warnings:					
Information:					

6	Fee Worksheet (SB06)	fee-info.pdf	32808 ee9f0a714b96acb9a52c73d2d90917464c00e47e	no	2

Warnings:	
Information:	
Total Files Size (in bytes):	2048828

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New International Application Filed with the USPTO as a Receiving Office
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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	70314/01061
	Application Number	
Title of Invention	Handheld Electronic Device and Associated Method Providing Time Data in a Messaging Environment	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
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Applicant Information:

Applicant 1

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	70314/01061
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Title of Invention	Handheld Electronic Device and Associated Method Providing Time Data in a Messaging Environment	

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All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below. For further information see 37 CFR 1.33(a).

☐ **An Address is being provided for the correspondence Information of this application.**

Customer Number	91704		
Email Address	rimpatent@blakes.com	Add Email	Remove Email

Application Information:

Title of the Invention	Handheld Electronic Device and Associated Method Providing Time Data in a Messaging Environment		
Attorney Docket Number	70314/01061	**Small Entity Status Claimed**	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Suggested Class (if any)		**Sub Class (if any)**	
Suggested Technology Center (if any)			
Total Number of Drawing Sheets (if any)	7	**Suggested Figure for Publication (if any)**	4

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S. C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Enter either Customer Number or complete the Representative Name section below. If both sections are completed the Customer Number will be used for the Representative Information during processing.

Please Select One:	◉ Customer Number	○ US Patent Practitioner	○ Limited Recognition (37 CFR 11.9)

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	70314/01061
	Application Number	
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Customer Number	91704

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c) or indicate National Stage entry from a PCT application. Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78(a)(2) or CFR 1.78(a)(4), and need not otherwise be made part of the specification.

Prior Application Status	Pending		Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
	Continuation of	13111675	2011-05-19

Prior Application Status	Patented				Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
13111675	Continuation of	10944925	2004-09-20	7970849	2011-06-28

Prior Application Status	Expired		Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
10944925	non provisional of	60504379	2003-09-19

Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button.

Foreign Priority Information:

This section allows for the applicant to claim benefit of foreign priority and to identify any prior foreign application for which priority is not claimed. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55(a).

Remove

Application Number	Country[1]	Parent Filing Date (YYYY-MM-DD)	Priority Claimed
			◯ Yes ◯ No

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button.

Assignee Information:

Providing this information in the application data sheet does not substitute for compliance with any requirement of part 3 of Title 37 of the CFR to have an assignment recorded in the Office.

Assignee 1

If the Assignee is an Organization check here. ☒

Organization Name	Research In Motion Limited

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	70314/01061
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Additional Assignee Data may be generated within this form by selecting the **Add** button.

Signature:

A signature of the applicant or representative is required in accordance with 37 CFR 1.33 and 10.18. Please see 37 CFR 1.4(d) for the form of the signature.

Signature				Date (YYYY-MM-DD)	2012-09-13
First Name	Brett	Last Name	Slaney	Registration Number	58772

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

HANDHELD ELECTRONIC DEVICE AND ASSOCIATED METHOD PROVIDING TIME DATA IN A MESSAGING ENVIRONMENT

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation of U.S. Patent Application No. 13/111,675 filed on May 19, 2011 which is a continuation of U.S. Patent Application No. 10/944,925 filed on September 20, 2004 which claims the benefit of U.S. Provisional Application No. 60/504,379 entitled filed on Sep. 19, 2003, all of which are hereby incorporated into the present application by reference.

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0002] The invention relates generally to handheld electronic devices and, more particularly, to a handheld electronic device and a method for providing information representative of the times of certain communications in a messaging environment.

2. Background of the Invention

[0003] Numerous types of handheld electronic devices are known. Examples of such handheld electronic devices include, for instance, personal data assistants (PDAs), handheld computers, two-way pagers, cellular telephones, and the like. Such handheld electronic devices are generally intended to be portable, and thus are relatively small. Many handheld electronic devices also feature wireless communication capability, although many such handheld electronic devices are stand-alone devices that are functional without communication with other devices. With advances in technology, handheld electronic devices are being configured to include greater numbers of features while having relatively smaller form factors.

[0004] Electronic devices, including handheld electronic devices, are capable of numerous types of communication. One type of communication is "messaging", and one type of messaging is "instant messaging" which enables a first device to send a message on a more or less instantaneous basis to a second device. With most all instant messaging, a given electronic device is provided with an interface that outputs the various communications that have occurred between the electronic device and another electronic device during a messaging "conversation". A sample output on an electronic device that is representative of the various communications that have occurred during a conversation may be as follows:

[0005] Hi Honey, how was your day?

[0006] <Brutal! Larry embarrassed me in front of everybody.

[0007] What a Jerk!

[0008] <Yeah, but I got him back later with a karate chop! ☺

[0009] good for you.

[0010] In this example, incoming messages are indicated by a greater than ">"mathematical symbol, and outgoing messages are indicated by a less than "<" mathematical symbol. If the conversation continues quickly, i.e., substantially without interruption, the messages do not need a time stamp on them. In the environment of a handheld electronic device, it would be desirable to avoid unnecessary time stamps and other unnecessary output since it occupies too much valuable space on the limited display of the handheld electronic device.

[0011] In some messaging circumstances, however, it may be desirable for information regarding certain timing aspects of conversation to be available to a user. Nevertheless, the limited space available on a display of a handheld electronic device has made a solution difficult. It thus would be desirable to provide an improved handheld electronic device and an associated method that provide time data in a messaging environment.

SUMMARY OF THE INVENTION

[0012] An improved handheld electronic device and an associated method are provided in which time data regarding certain aspects of a messaging conversation on a handheld electronic device are made available to a user. Such time data is provided, for instance, in situations where an interruption has occurred during a messaging conversation. Time data can also be provided to a user on demand in certain circumstances.

[0013] Accordingly, an aspect of the invention is to provide an improved handheld electronic device and a method in which data regarding the times at which certain communications have

occurred in a messaging environment are made available to a user.

[0014] Another aspect of the invention is to provide an improved handheld electronic device and a method that enables a user to be made aware of certain timing aspects of a conversation in a messaging environment.

[0015] Another aspect of the invention is to provide an improved handheld electronic device and a method in which data regarding the times at which certain communications have occurred are made available to a user while limiting the amount of display area that is occupied by such data.

[0016] Another aspect of the invention is to provide an improved handheld electronic device and a method in which data can be provided regarding the elapsed time since a communication.

[0017] Accordingly, an aspect of the invention is to provide an improved method of providing an output on at least one of a first electronic device and a second electronic device, with the first electronic device being adapted to be in electronic communication with a second electronic device. The general nature of the method can be stated as including determining that a first messaging communication has occurred at a first time between the first device and the second device, outputting a first indication that is representative of at least a portion of the first communication, determining that a predetermined period of time has elapsed since the first time substantially without further communication between the first device and the second device and, responsive to determining that a predetermined period of time has elapsed, outputting a first time stamp representative of the first time.

[0018] Another aspect of the invention is to provide an improved method of providing an output on at least one of a first electronic device and a second electronic device, with the first electronic device being adapted to be in electronic communication with a second electronic device. The general nature of the method can be stated as including determining that a first messaging communication has occurred at a first time between the first device and the second device, outputting a first indication that is representative of at least a portion of the first communication, detecting a predetermined input and, responsive to detecting a predetermined

input, outputting a first time stamp representative of the first time.

[0019] Another aspect of the invention is to provide an improved method of providing an output on at least one of a first electronic device and a second electronic device, with the first electronic device being adapted to be in electronic communication with a second electronic device. The general nature of the method can be stated as including determining that a first messaging communication has occurred at a first time between the first device and the second device, outputting a first indication that is representative of at least a portion of the first communication, determining that a first period of time has elapsed since the first time substantially without further communication between the first device and the second device and, responsive to determining that a first period of time has elapsed, outputting a first time stamp representative of the first period of time.

[0020] Another aspect of the invention is to provide an improved handheld electronic device of a type that is adapted to be in electronic communication with another electronic device. The general nature of the handheld electronic device can be stated as including a processor apparatus, an input apparatus, and an output apparatus. The processor apparatus includes a processor and a memory and is adapted to receive input from the input apparatus and to provide output to the output apparatus. The processor apparatus also is adapted to determine that a first messaging communication has occurred at a first time between the handheld electronic device and the other electronic device. The output apparatus is adapted to output a first indication that is representative of at least a portion of the first communication. The processor apparatus is adapted to determine that a predetermined period of time has elapsed since the first time substantially without further communication between the handheld electronic device and the other electronic device. Responsive to a determination that a predetermined period of time has elapsed, the output apparatus is adapted to output a first time stamp representative of the first time.

BRIEF DESCRIPTION OF THE DRAWINGS

[0021] A full understanding of the invention can be gained from the following Description of the Preferred Embodiments when read in conjunction with the accompanying drawings in which:

[0022] FIG. 1 is an exemplary top plan view of a handheld electronic device in accordance with

the invention which can be used in conjunction with an improved method in accordance with the invention;

[0023] FIG. 2 is a schematic view of the handheld electronic device of FIG. 1;

[0024] FIG. 3 is a schematic view of the handheld electronic device of FIG. 1 and another device in a messaging environment;

[0025] FIG. 4 is an exemplary view of an output provided in accordance with an aspect of the method of the invention;

[0026] FIG. 5 is another exemplary view of an output provided in accordance with an aspect of the method of the invention;

[0027] FIG. 6a is another exemplary view of an output provided in accordance with an aspect of the method of the invention;

[0028] FIG. 6b is another exemplary view of an output provided in accordance with an aspect of the method of the invention;

[0029] FIG. 7 is another exemplary view of an output provided in accordance with an aspect of the method of the invention;

[0030] FIG. 8a is another exemplary view of an output provided in accordance with an aspect of the method of the invention;

[0031] FIG. 8b is another exemplary view of an output provided in accordance with an aspect of the method of the invention;

[0032] FIG. 9 is another exemplary view of an output provided in accordance with an aspect of the method of the invention; and

[0033] FIG. 10 is another exemplary view of an output provided in accordance with an aspect

of the method of the invention.

[0034] Similar numerals refer to similar parts to the specification.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0035] An improved handheld electronic device 4 in accordance with the invention is indicated generally in FIG. 1 and is depicted schematically in FIG. 2. The exemplary handheld electronic device 4 includes a housing 8 upon which are disposed an input apparatus 12, an output apparatus 16 and a processor apparatus 20. The input apparatus 12 includes a keypad 24 that can be said to include a plurality of keys 28.

[0036] The output apparatus 16 includes a display 50. The output apparatus 16 can additionally include, for instance, additional indicators such as lights, and the like, and can additionally include an audible output such as a speaker as well as other output devices.

[0037] The processor apparatus 20 includes a processor 52 that can be, for instance, and without limitation, a microprocessor (μP), and it is responsive to inputs from the input apparatus 12 and provides output signals to the output apparatus 16. The processor apparatus 20 further includes a memory 56 that includes a routine 60 stored therein. The exemplary routine 60 is a messaging routine that can provide a messaging capability on the device 4. It is understood that the memory 56 likely includes a number of other routines that are not expressly mentioned herein. As employed herein, the expression "a number of" and variations thereof shall refer broadly to any nonzero quantity including a quantity of one. The processor 52 interfaces with the memory 56, and the routine 60 is executable on the processor 52.

[0038] The device 4 further includes a wireless communication system. As can be seen in FIG. 3, the device 4 with the routine 60 can interface with a messaging service 62 to wirelessly provide the messaging capability on the device 4. In the depicted exemplary embodiment, the messaging service 62 provides an instant messaging capability on the device 4 and on the other electronic devices having routines that are subscribers to the messaging service 62. The messaging service 62 is schematically depicted as including a server, although the teachings

herein are not limited to messaging services that employ a server. For instance, the messaging service could, for example, provide a point-to-point communication capability such as is provided with the Bluetooth protocol, or may provide some other type of communication capability, whether or not wireless.

[0039] FIG. 3 further depicts another device 104 as being a device having a routine that is another subscriber to the messaging service 62. Specifically, the device 104 is an electronic device having a routine 160 thereon which can communicate with the messaging service 62 to provide a messaging capability on the device 104. While the exemplary devices 4 and 104 are depicted as having a wireless connection with the messaging service 62, it is understood that either or both of the devices 4 and 104 may employ a non-wireless communication capability and still not depart from the concept of the invention. It is further understood that while only the two devices 4 and 104 are depicted in FIG. 3 as being subscribers to the messaging service 62, many more subscribers to the messaging service 62 may exist but are not expressly depicted in FIG. 3.

[0040] During the course of an electronic conversation, such as depicted in FIG. 4 between, for instance, the devices 4 and 104, a number of messages 68 are communicated between the devices 4 and 104. An incoming message 72 received on, for instance, the device 4, provides a visual indication of a communication that has been transmitted from, for instance, the device 104 to the device 4. As can be seen in FIG. 4, an incoming message 72 includes an incoming symbol 66 and an incoming text portion 70. In the exemplary output depicted herein, the incoming symbol 66 is a mathematical greater than ">" symbol. The text portion 70 is an exemplary linguistic output that could be of numerous types of forms, such as in different languages, and also can include, for instance, symbols and the like that need not necessarily be a part of any particular language.

[0041] An outgoing message 76 is depicted as including an outgoing symbol 74, and an outgoing text portion 78. In the exemplary output depicted herein, the outgoing symbol 74 is a mathematical less than "<" symbol. The text portion 78 is an exemplary linguistic output that could be of numerous types of forms.

[0042] As can be further seen from FIG. 4, the exemplary conversation depicted therein

includes a plurality of incoming messages 72 and a plurality of outgoing messages 76 that are transmitted between the devices 4 and 104 at a conversational speed, i.e., at a speed in which back-to-back communications between the devices 4 and 104 occur without a meaningful delay therebetween. Due to the conversational speed of the back-to-back communications, the messages 68 do not include an indication of the times at which such messages 68 were transmitted, it being assumed as a general matter that in such circumstances the specific time at which a given message within such a conversation occurred may not be of significance to a user.

[0043] At a certain point in the exemplary conversation, though, an exemplary message 68 which, for example, may be an outgoing message 76, may also become a non-responded-to message 80, meaning that subsequent to its transmission substantially no additional communication occurs between the device 4 and 104 within a predetermined duration of time. More specifically, as the conversation transpires, the back-to-back incoming messages 72 and outgoing messages 76 are displayed adjacent one another. However, after the expiration of a predetermined duration of time after the transmission of a message 68, for instance ten minutes, in which substantially no additional communication occurs between the device 4 and 104, the message 68 is determined in accordance with the invention to be a non-responded-to message 80, and responsive to such determination a first time stamp 84 is output adjacent the non-responded-to message 80. For instance, if the non-responded-to message 80 was transmitted at 2:44 PM, and if substantially no additional communication between the device 4 and 104 occurs between 2:44 PM and 2:54 PM, at 2:54 PM the first time stamp 84 "2:44 pm" is output to provide to the users of the devices 4 and 104 an indication that the conversation was interrupted at 2:44 PM. Such selective outputting of the first time stamp 84 generally only in response to a message 68 of some significance, such as the terminal message of a conversation, saves space on the display 50. It is noted that the display of the first time stamp 84 typically will occur on both the device 4 and the device 104.

[0044] It is understood, however, that the time duration of ten minutes is completely exemplary and that the time duration could be set at any duration. It is also understood that the first time stamp 84 can be output in response to the occurrence of additional and/or other predetermined events. Moreover, it is noted that the predetermined time duration may be variable depending upon the characteristics of the conversation. For instance, if messages are

being exchanged on a more infrequent basis, such as every nine minutes, the predetermined duration of time after which the first time stamp 84 is output may be adjusted to be twenty minutes, for example.

[0045] By way of further example, and as is depicted generally in FIG. 5, another message 68 may subsequently be communicated between the devices 4 and 104. Since the message 68 corresponds with a resumption of communication between the devices 4 and 104 after a period of interruption, the message 68 is determined to be a resumption message 88, and a second time stamp 92 is output adjacent the resumption message 88. A user thus can determine from the output on the display 50 the period of time during which the conversation was suspended, i.e., the time between transmission of the non-responded-to message 80 and transmission of the resumption message 88. Selective outputting of the second time stamp 92 saves space on the display 50. In this depicted example, the first time stamp 84 is disposed, for example, adjacent the non-responded-to message 80, and the second time stamp 92 is disposed, for example, adjacent the resumption message 88. It is also noted that the second time stamp 92 is disposed, for example, between the non-responded-to message 80 and the resumption message 88.

[0046] As the conversation continues after transmission of the resumption message 88, one of the users of the devices 4 and 104 may determine that a time stamp would desirably be displayed in association with a message 68, such as if the user wished to emphasize to himself or herself, or to the other user, the time at which the message 68 was transmitted. If such a time stamp is desired, the user may activate a user interface 96, such as the exemplary user interface 96 of FIG. 6a, which can manually cause the output of an inserted time stamp 98 adjacent the message 68, as in FIG. 6b. As mentioned above, the inserted time stamp 98 can be made to appear on both the device 4 and the device 104, and it is also noted that, if desired, the inserted time stamp 98 could be made to appear on only one or the other of the devices 4 and 104.

[0047] As can be seen in FIG. 7, the output could provide a non-responded-to message 180 and a resumption message 188, with a first time stamp 184 being disposed adjacent the non-responded-to message 180, and with a second time stamp 192 being disposed adjacent the resumption message 188. However, in the exemplary output of FIG. 7 the first time stamp 184

and the second time stamp 192 are disposed adjacent one another and are both disposed between the non-responded-to message 180 and the resumption message 188. Such an exemplary display of the first and second time stamps 184 and 192 illustrates the gap in the conversation that occurred between transmission of the non-responded-to message 180 and transmission of the resumption message 188. It is noted that the first time stamp 184 and the second time stamp 192 may have been generated in a fashion similar to the generation of the first time stamp 84 and the second time stamp 92.

[0048] As can be seen in FIGS. 8a and 8b, the time stamps can be output in other places. For instance, a text portion of a non-responded-to message 280 may have a beginning 282 and an ending 286. Similarly, a text portion of a resumption message 288 may have a beginning 290 and an ending 294. In accordance with another aspect of the invention, a first time stamp 284 can be output at either the beginning 282 or the ending 286 of the text portion of the non-responded-to message 280, and in the example of FIG. 8a the exemplary first time stamp 284 is output at the beginning 282. Also, a second time stamp 292 can be output at either the beginning 290 or the ending 294 of the text portion of the resumption message 288, and in the example of FIG. 8a the exemplary second time stamp 292 is output at the beginning 290. Other positioning of the first time stamp 284 and the second time stamp 292 are possible within the concept of the invention.

[0049] For instance, and as another example, FIG. 8b depicts the exemplary first time stamp 284 as being output at the ending 286 while the exemplary second time stamp 292 is output at the beginning 290. FIGS. 8a and 8b depict different exemplary ways in which the first and second time stamps 284 and 292 can be output to provide time data to a user. In FIG. 8a the first and second time stamps 284 and 292 are disposed at a consistent location, i.e., at the beginnings 282 and 290 of the text portions of the non-responded-to message 280 and the resumption message 288. FIG. 8b disposes the first and second time stamps 284 and 292 generally between the ending 286 of the non-responded-to message 280 and the beginning 290 of the resumption message 288, which focuses the attention of the user on the interval during which the conversation was interrupted. Other ways of outputting the first and second time stamps 284 and 292 will be apparent.

[0050] Another way of providing time stamps in a fashion that saves space on the display 50 is

depicted in FIG. 9. Specifically, the messages 368 are output without displayed time stamps, but upon moving a cursor 374 or other pointing device or other device in proximity to a given message 368 a corresponding requested time stamp is output adjacent the message 368. In this way, the messages 368 can be provided without also displaying time stamps, but if a time stamp is desired as to any of the messages 368 a requested time stamp 378 can be readily output. In this regard, the requested time stamp 378 may be output for only a predetermined duration of time, for instance a few seconds, and/or the requested time stamp 378 may be deleted from the display 50 upon a detection of another input, such as from the input apparatus 12 or otherwise. In this regard, all of the messages 368 can have time stamps associated therewith that are not displayed until requested.

[0051] It is also noted that the requested time stamp 378 need not be requested by the cursor 374, and rather could be requested with virtually any other type of input desired, such as with a stylus and a touch sensitive screen, by an actuation of a key, or by the use of alternate pointing or other devices. Other ways of managing the output of the requested time stamp 378 as to any of the messages 368 will be apparent.

[0052] It is noted that the appearances of the various time stamps herein is completely exemplary, and that the time stamps could be provided in any format without departing from the concept of the invention. In this regard, and in accordance with another aspect of the invention, a given time stamp may be a smart time stamp and provide additional information depending upon the prevailing circumstances. For instance, if the first time stamp 84 of FIG. 4 was output as indicated above, and if the conversation was not resumed until the following day, the first time stamp 84 potentially could be configured to automatically change from being displayed as "2:44 pm" on the day of communication of the non-responded-to message 80 to being displayed as, for instance, "2:44 pm Thursday" or, for instance, "2:44 PM September 17, 2004" or, for instance, "2:44 pm yesterday" on the following day, although other configurations will be apparent and will be within the concept of the invention.

[0053] Further in this regard, the time stamps can be configured to depict relative times, i.e., elapsed times, rather than absolute times. For instance, and as is depicted generally in FIG. 10, a time stamp 478 associated with a message 468 can be output to say, for example, "less than one minute ago", meaning that the message 468 that has been activated by the cursor

474 has been transmitted less than one minute prior to the current time.

[0054] Such a time stamp 478 could be configured to be an active time stamp, meaning that it would change as time progressed. For instance, the time stamp 478 could progressively change from saying "less than one minute ago" to saying "one minute ago", "two minutes ago", "forty-five minutes ago", and the like as time progressed. Such a time stamp also could be configured, for instance, to revert back to displaying an absolute time after the expiration of a given time duration. For example, once the message 468 is one hour old, for instance, the time stamp 478 might be configured to no longer output a relative time such as "fifty-nine minutes ago", and rather to output an absolute time such as "2:54 pm". Other variations can be provided without departing from the concept of the invention.

[0055] If it is desired to provide such time stamps that output relative times, it might also be desirable to output such time stamps in any of the fashions set forth above, and such time stamps potentially could be configured to be output without first detecting a delay or a break in the "conversation". For instance, the time stamp "less than a minute ago" could be displayed immediately upon receiving a message on the handheld electronic device 4, if such a configuration is desired. In such a configuration, and in order to save space on the display 50, the handheld electronic device 4 may be configured to provide such a relative time stamp only for the most recently transmitted message. That is, responsive to detecting the transmission of a message, the handheld electronic device may be configured to substantially immediately output a time stamp such as "less than a minute ago". After one minute the time stamp may be altered to say "one minute ago", and the like. However, upon the transmission of an additional message, the time stamp for the prior message can be deleted and a new time stamp such as "less than a minute ago" can be provided with respect to the new message.

[0056] Such relative time stamps provide to the user an expedited understanding of the timing aspects of the message. That is, the user can understand an aspect of the time of transmission without having to refer to the current time. This advantageously saves effort by the user because it eliminates the mental step of determining the current time and subtracting therefrom an absolute time displayed by a time stamp to determine the elapsed time since transmission of the message.

[0057] The different fashions of selectively providing intelligent time data in the form of selectively output time stamps advantageously saves valuable space on the display 50. Moreover, such selective outputting of time stamps advantageously avoids unnecessary visual clutter on the display 50.

[0058] While specific embodiments of the invention have been described in detail, it will be appreciated by those skilled in the art that various modifications and alternatives to those details could be developed in light of the overall teachings of the disclosure. Accordingly, the particular arrangements disclosed are meant to be illustrative only and not limiting as to the scope of the invention which is to be given the full breadth of the claims appended and any and all equivalents thereof.

Claims:

1. A method of displaying an instant messaging conversation on a display of an electronic device, the method comprising:

displaying a conversation of instant messages;

displaying a first time information for an instant message in the conversation in response to a first input;

changing the first time information for the instant message to a second time information as time progresses; and

displaying the second time information in response to a second input.

2. The method of claim 1, wherein the first time information comprises an absolute time.

3. The method of claim 2, wherein the second time information further comprises additional information.

4. The method of claim 3, wherein the additional information comprises an indication of a day on which the instant message was sent.

5. The method of claim 1, wherein at least one of the first time information and second time information comprises a relative time.

6. The method of claim 5, wherein the second time information comprises an absolute time after expiration of a predetermined duration of time.

7. The method of claim 1, wherein the first time information is displayed for only a predetermined duration of time.

8. The method of claim 1, wherein at least one of the first input and second input comprises detecting a pointing device in proximity to the instant message.

9. An electronic device for displaying an instant messaging conversation, the electronic device comprising:

a display;

a memory; and

a processor electronically coupled with the display and the memory, the processor configured to:

display a conversation of instant messages;

display a first time information for an instant message in the conversation in response to a first input;

change the first time information for the instant message to a second time information as time progresses; and

display the second time information in response to a second input.

10. The electronic device of claim 9, wherein the first time information comprises an absolute time.

11. The electronic device of claim 10, wherein the second time information further comprises additional information.

12. The electronic device of claim 11, wherein the additional information comprises an indication of a day on which the instant message was sent.

13. The electronic device of claim 9, wherein at least one of the first time information and second time information comprises a relative time.

14. The electronic device of claim 13, wherein the second time information comprises an absolute time after expiration of a predetermined duration of time.

15. The method of claim 9, wherein the first time information is displayed for only a predetermined duration of time.

16. The electronic device of claim 9, wherein at least one of the first input and second input comprises detecting a pointing device in proximity to the instant message.

17. A non-transitory computer readable medium comprising computer executable instructions embedded thereon for execution by a processor of an electronic device such that, when executed, cause the processor to:

display a conversation of instant messages;

display a first time information for an instant message in the conversation in response to a first input;

change the first time information for the instant message to a second time information as time progresses; and

display the second time information in response to a second input.

ABSTRACT

An improved handheld electronic device and an associated method are provided in which time data regarding certain aspects of a messaging conversation on a handheld electronic device are made available to a user. Such time data is provided, for instance, in situations where an interruption has occurred during a messaging conversation. Time data can also be provided to a user on demand in certain circumstances.

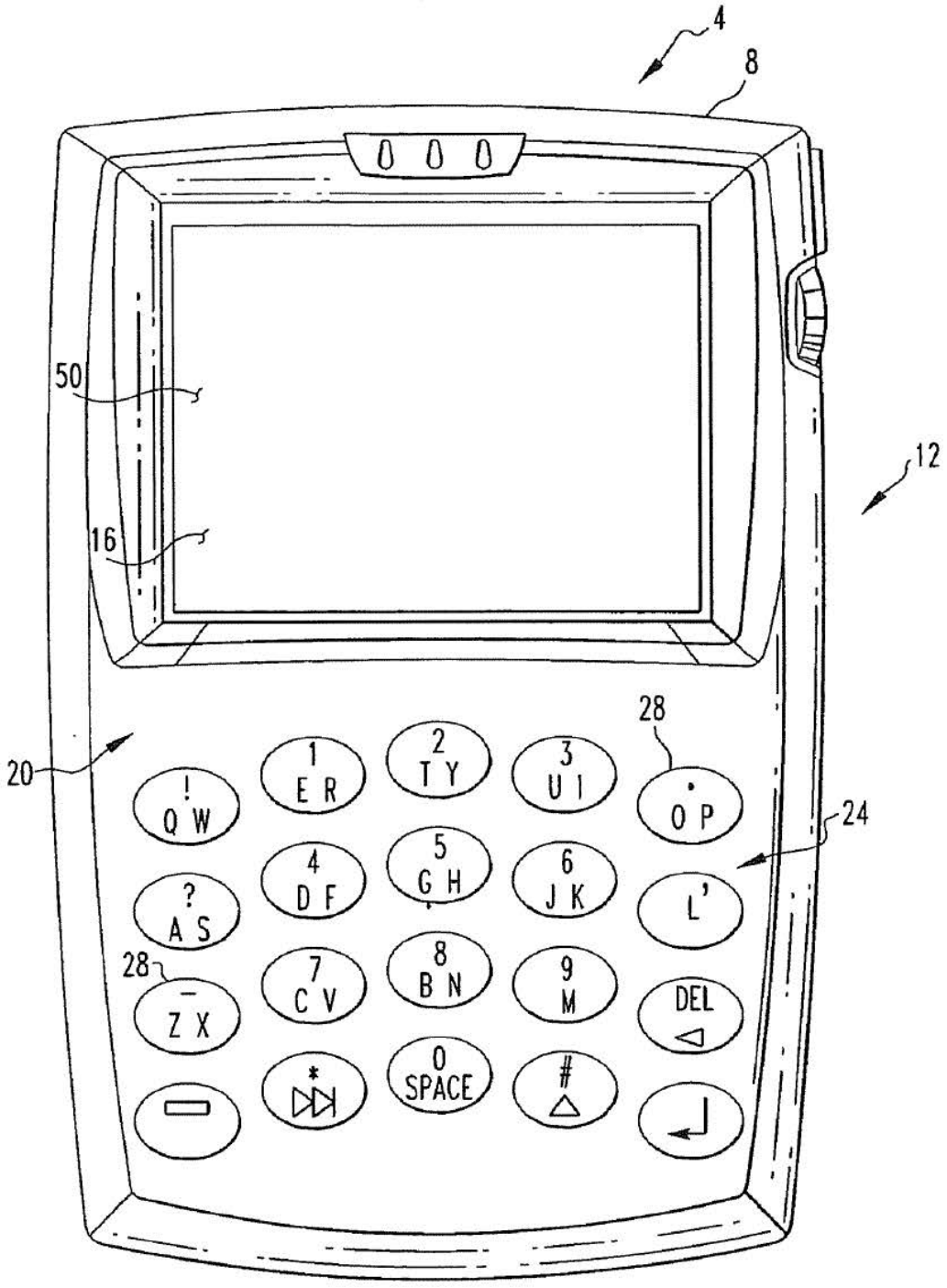
4
8
0 0 0
50
16
12
20
28
24
28
1 E R
2 T Y
3 U I
! Q W
. O P
4 D F
5 G H
6 J K
? A S
L '
7 C V
8 B N
9 M
DEL
Z X
0 SPACE
#

FIG.1

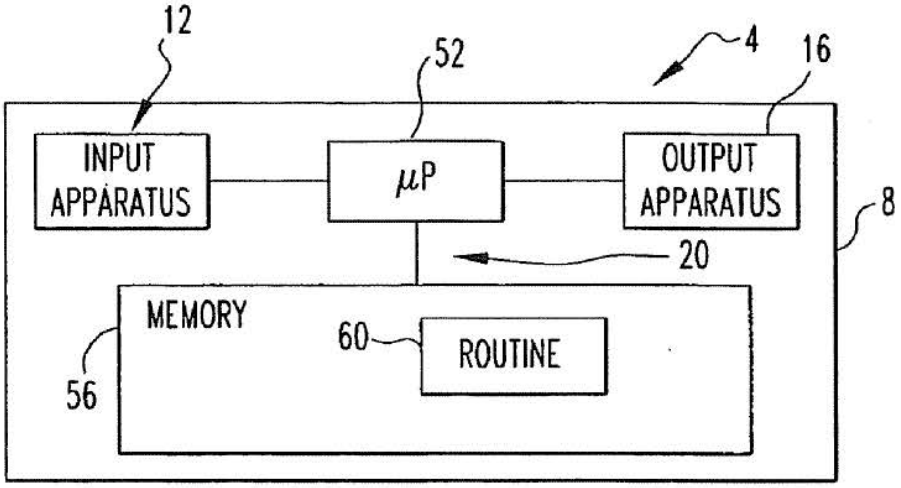
12
52
4
16
INPUT APPARATUS
μP
OUTPUT APPARATUS
8
20
MEMORY
60
ROUTINE
56

FIG.2

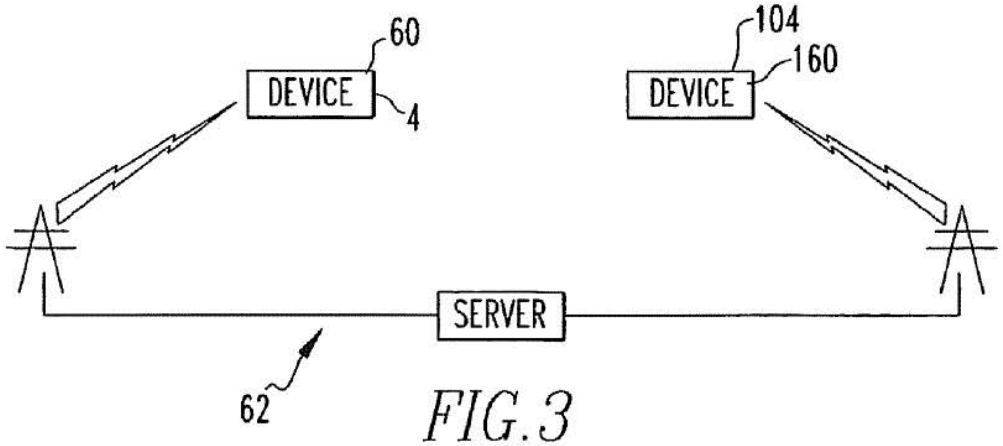
60
104
160
DEVICE
4
DEVICE
SERVER
62

FIG.3

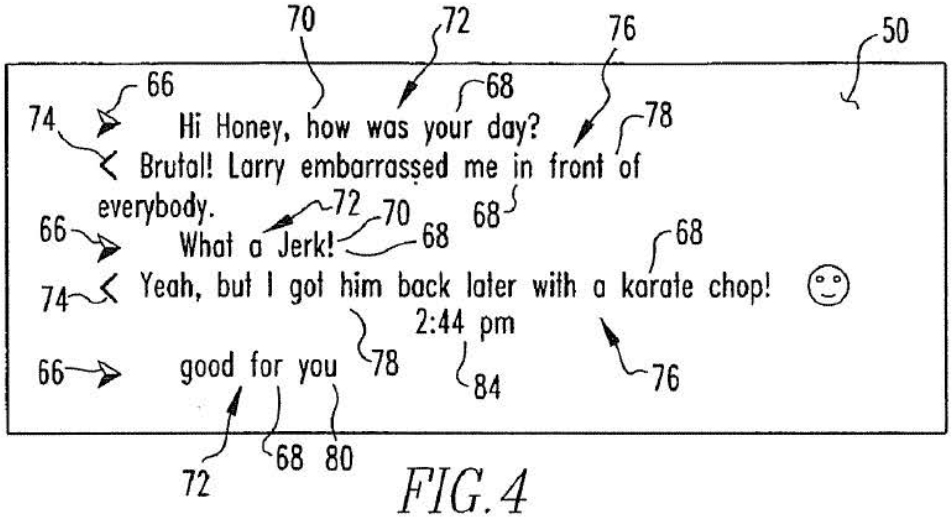
70
72
76
50
66
68
74
Hi Honey, how was your day?
78
Brutal! Larry embarrassed me in front of everybody.
72
70
68
66
What a Jerk!
68
68
74
Yeah, but I got him back later with a karate chop!
2:44 pm
66
good for you
78
84
76
72
68
80

FIG. 4

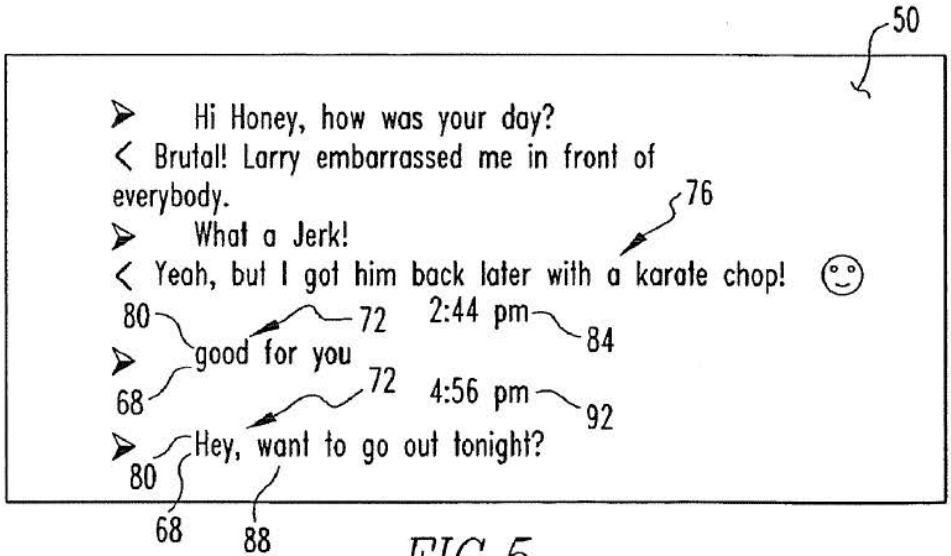
50
Hi Honey, how was your day?
Brutal! Larry embarrassed me in front of everybody.
76
What a Jerk!
Yeah, but I got him back later with a karate chop!
80
72
2:44 pm
84
good for you
68
72
4:56 pm
92
Hey, want to go out tonight?
80
68
88

FIG. 5

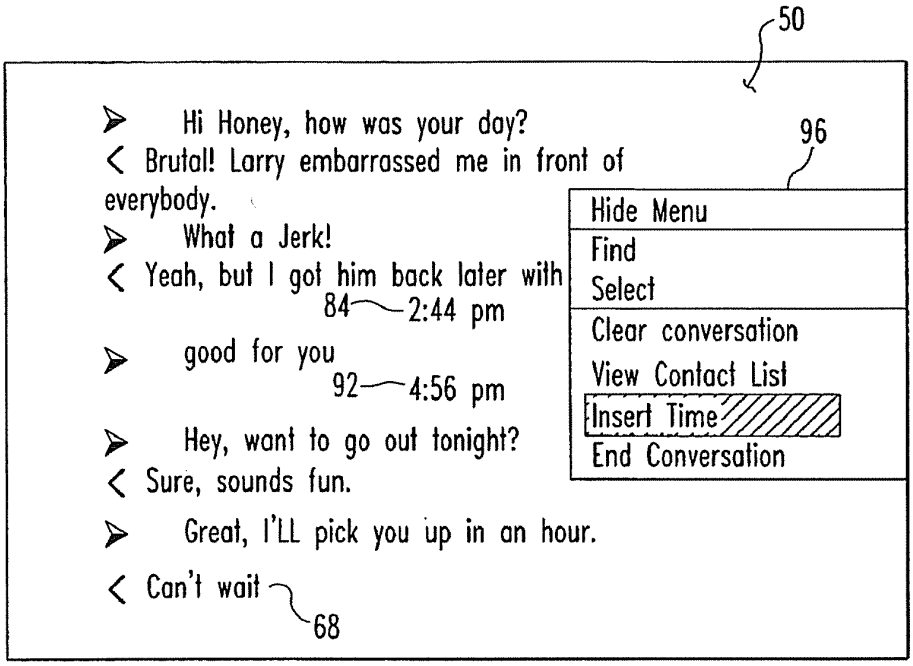
50
Hi Honey, how was your day?
Brutal! Larry embarrassed me in front of everybody.
What a Jerk!
Yeah, but I got him back later with
84
2:44 pm
good for you
92
4:56 pm
Hey, want to go out tonight?
Sure, sounds fun.
Great, I'LL pick you up in an hour.
Can't wait
68
96
Hide Menu
Find
Select
Clear conversation
View Contact List
Insert Time
End Conversation

FIG.6a

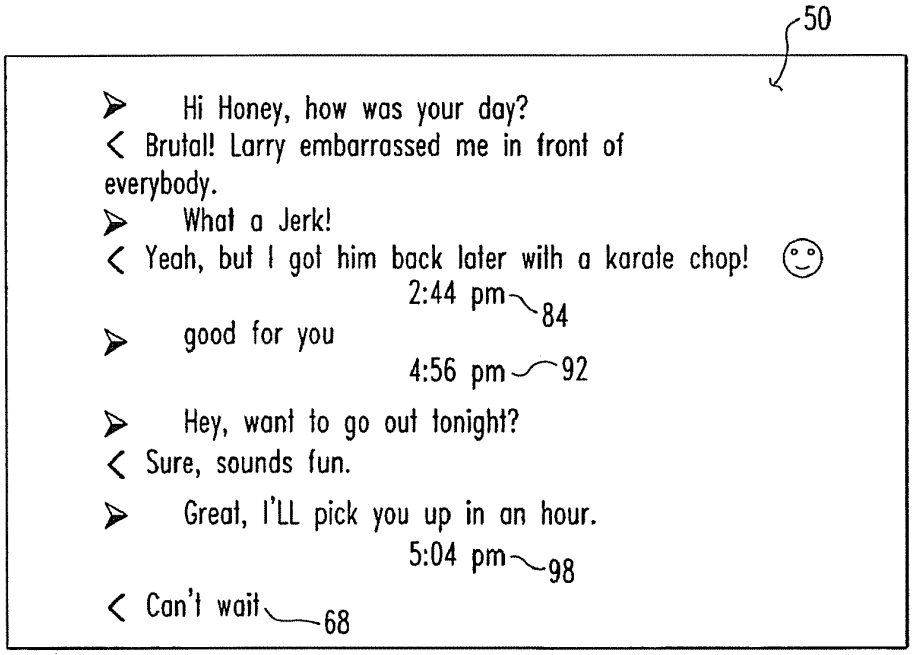
50
Hi Honey, how was your day?
Brutal! Larry embarrassed me in front of everybody.
What a Jerk!
Yeah, but I got him back later with a karate chop!
2:44 pm
84
good for you
4:56 pm
92
Hey, want to go out tonight?
Sure, sounds fun.
Great, I'LL pick you up in an hour.
5:04 pm
98
Can't wait
68

FIG.6b

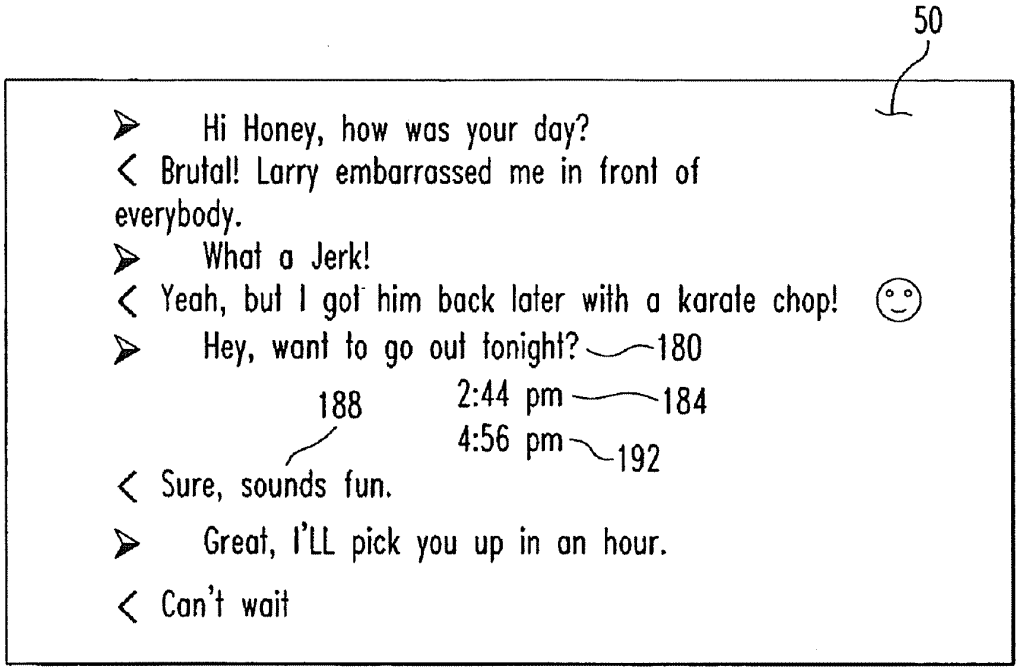
50
Hi Honey, how was your day?
Brutal! Larry embarrassed me in front of everybody.
What a Jerk!
Yeah, but I got him back later with a karate chop!
Hey, want to go out tonight?
180
2:44 pm
184
4:56 pm
192
188
Sure, sounds fun.
Great, I'LL pick you up in an hour.
Can't wait

FIG. 7

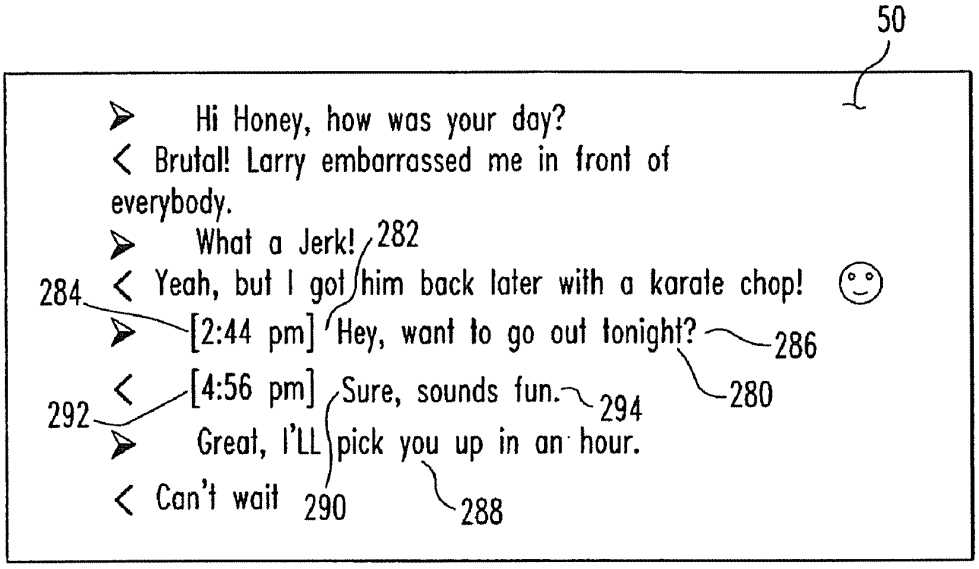
50
Hi Honey, how was your day?
Brutal! Larry embarrassed me in front of everybody.
What a Jerk!
Yeah, but I got him back later with a karate chop!
[2:44 pm] Hey, want to go out tonight?
[4:56 pm] Sure, sounds fun.
Great, I'LL pick you up in an hour.
Can't wait
282
284
286
280
292
294
290
288

FIG.8a

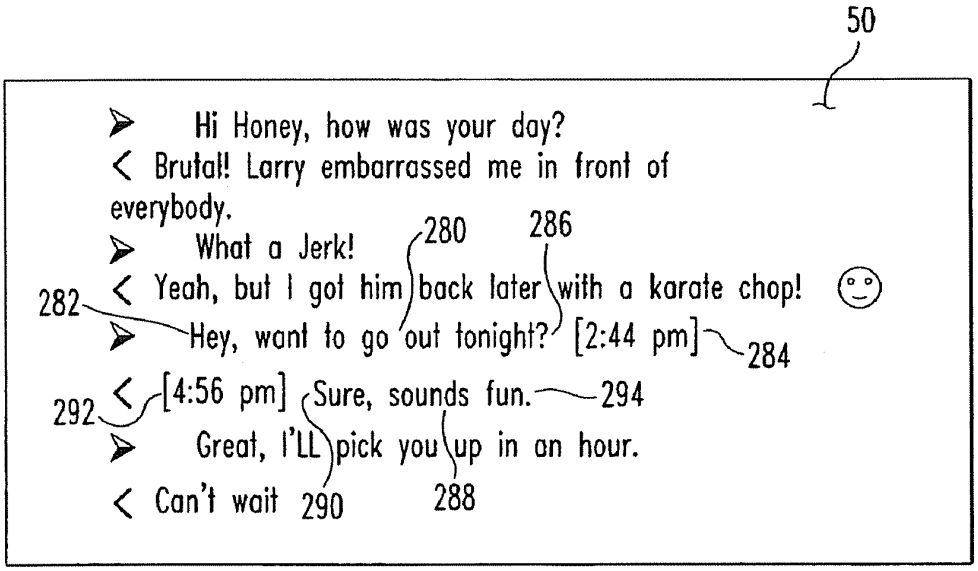
50
Hi Honey, how was your day?
Brutal! Larry embarrassed me in front of everybody.
What a Jerk!
Yeah, but I got him back later with a karate chop!
Hey, want to go out tonight? [2:44 pm]
[4:56 pm] Sure, sounds fun.
Great, I'LL pick you up in an hour.
Can't wait
280
286
282
284
292
294
290
288

FIG.8b

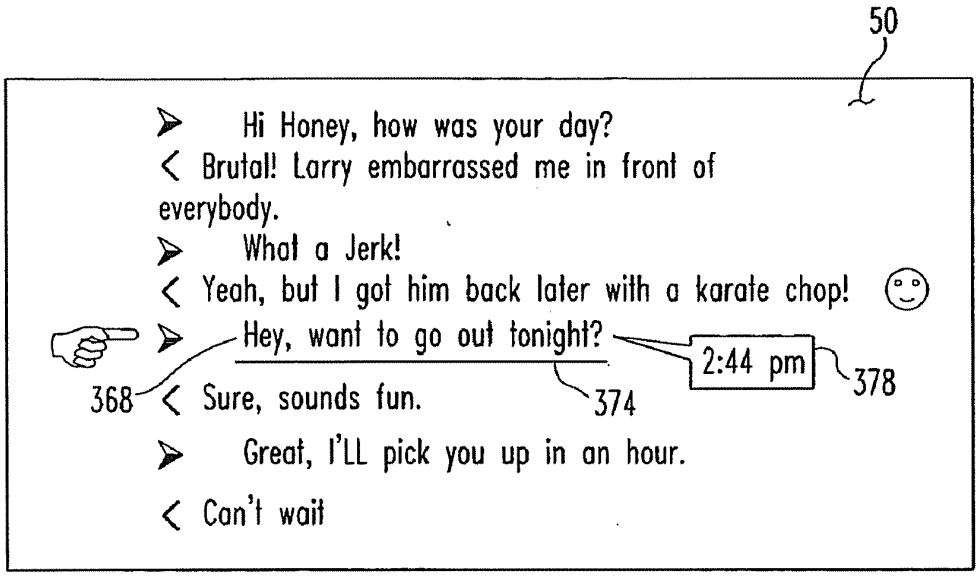
50
Hi Honey, how was your day?
Brutal! Larry embarrassed me in front of everybody.
What a Jerk!
Yeah, but I got him back later with a karate chop!
Hey, want to go out tonight?
2:44 pm
378
368
Sure, sounds fun.
374
Great, I'LL pick you up in an hour.
Can't wait

FIG.9

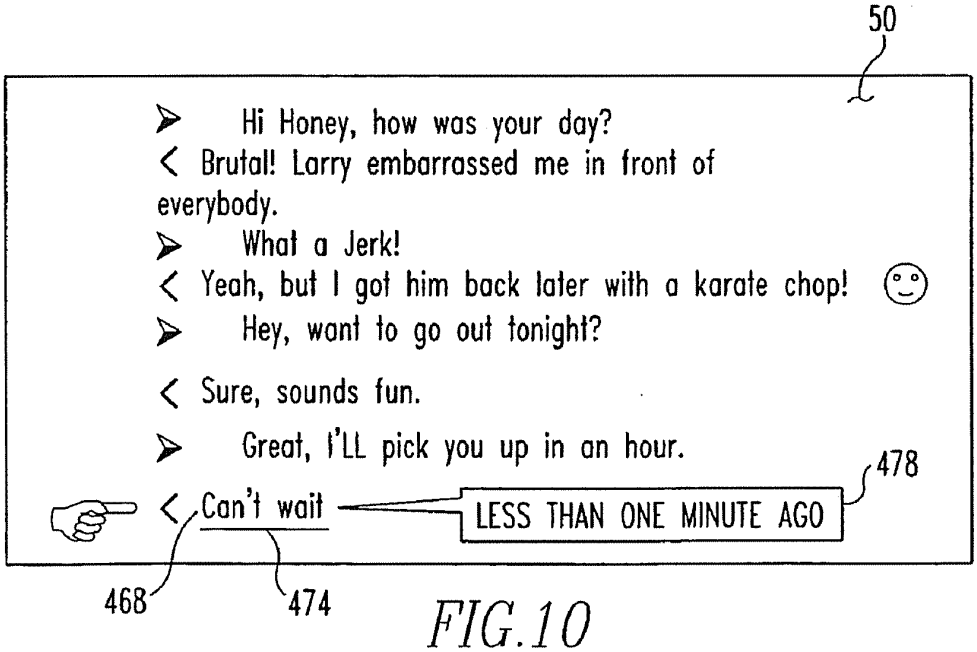
50
Hi Honey, how was your day?
Brutal! Larry embarrassed me in front of everybody.
What a Jerk!
Yeah, but I got him back later with a karate chop!
Hey, want to go out tonight?
Sure, sounds fun.
Great, I'LL pick you up in an hour.
478
Can't wait
LESS THAN ONE MINUTE AGO
468
474

FIG.10

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
13/615,419	09/13/2012	

APPLICATION AS FILED – PART I

	(Column 1)	(Column 2)	SMALL ENTITY ☐		OR	OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE ($)	FEE ($)		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =		OR	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =		OR	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =		OR	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =		OR	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))									
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
/JUDY
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.