

17621 U.S. PTO  
022404

PTO/SB/05 (01-04)  
Approved for use through 07/31/2006. 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 displays a valid OMB control number.

<b>UTILITY PATENT APPLICATION TRANSMITTAL</b>  <small>(Only for new nonprovisional applications under 37 CFR 1.63(b))</small>	Attorney Docket No.	16813-1US
	First Inventor	KLASSEN, Gerhard D.
	Title	PREVIEWING A NEW EVENT ON A SMALL SCREEN
	Express Mail Label No.	

22387 U.S. PTO  
10/784781

022404

<b>APPLICATION ELEMENTS</b> <small>See MPEP chapter 600 concerning utility patent application contents.</small>	<b>ADDRESS TO:</b> <small>Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria VA 22313-1450</small>
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1.  Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
2.  Applicant claims small entity status.  
See 37 CFR 1.27.
3.  Specification [Total Pages: 29]  
(preferred arrangement set forth below)
  - Descriptive title of the invention
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to sequence listing, a table, or a computer program listing appendix
  - Background of the invention
  - Brief Summary of the invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
4.  Drawing(s) (35 U.S.C. 113) [Total Sheets: 9]
5. Oath or Declaration [Total Sheets: 1]
  - a.  Newly executed (original or copy)
  - b.  Copy from a prior application (37 CFR 1.63(d))  
(for continuation/divisional with Box 18 completed)
    - i.  **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s) name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6.  Application Data Sheet. See 37 CFR 1.76

7.  CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
  - a.  Computer Readable Form (CRF)
  - b. Specification Sequence Listing on:
    - i.  CD-ROM or CD-R (2 copies); or
    - ii.  Paper
  - c.  Statements verifying identity of above copies

ACCOMPANYING APPLICATION PARTS	
9. <input checked="" type="checkbox"/> Assignment Papers (cover sheet & document(s))	
10. <input checked="" type="checkbox"/> 37 CFR 3.73(b) Statement <input checked="" type="checkbox"/> Power of Attorney <small>(when there is an assignee)</small>	
11. <input type="checkbox"/> English Translation Document (if applicable)	
12. <input checked="" type="checkbox"/> Information Disclosure Statement (IDS)/PTO-1449 <input type="checkbox"/> Copies of IDS Citations	
13. <input type="checkbox"/> Preliminary Amendment	
14. <input type="checkbox"/> Return Receipt Postcard (MPEP 503) <small>(Should be specifically itemized)</small>	
15. <input type="checkbox"/> Certified Copy of Priority Document(s) <small>(if foreign priority is claimed)</small>	
16. <input type="checkbox"/> Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.	
17. <input type="checkbox"/> Other: .....	

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:

Continuation     Divisional     Continuation-in-part (CIP)    of prior application No.: .....

Prior application information: Examiner \_\_\_\_\_ Art Unit: \_\_\_\_\_  
 For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

**19. CORRESPONDENCE ADDRESS**

Customer Number: 020988    OR     Correspondence address below

Name			
Address			
City	State	Zip Code	
Country	Telephone	Fax	

Name (Print/Type)	Jonathan Pollock	Registration No. (Attorney/Agent)	49065
Signature		Date	02/ 24 /2004

This collection of information is required by 37 CFR 1.53(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 1.14. 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: Mail Stop Patent Application, 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.

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<h1 style="margin: 0;">FEE TRANSMITTAL</h1> <h2 style="margin: 0;">for FY 2004</h2> <p style="font-size: small; margin: 0;">Effective 10/01/2003. Patent fees are subject to annual revision.</p>	Complete if Known	
	Application Number	
	Filing Date	
	First Named Inventor	KLASSEN, Gerhard D.
	Examiner Name	
	Art Unit	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27		Attorney Docket No. 16813-1US
<b>TOTAL AMOUNT OF PAYMENT</b>		<b>(\$)</b> 810

**METHOD OF PAYMENT** (check all that apply)

Check  
  Credit card  
  Money Order  
  Other  
  None

Deposit Account:

Deposit Account Number: 195113  
 Deposit Account Name: OGILVY RENAULT

The Director is authorized to: (check all that apply)

Charge fee(s) indicated below  
  Credit any overpayments  
 Charge any additional fee(s) or any underpayment of fee(s)  
 Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION (continued)

**3. ADDITIONAL FEES**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
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1812	2,520	1812	2,520	For filing a request for ex parte reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	850	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	280	2403	145	Request for oral hearing	
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1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) \_\_\_\_\_

\*Reduced by Basic Filing Fee Paid

**SUBTOTAL (3)** (\$) 40

FEE CALCULATION

**1. BASIC FILING FEE**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	770
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

**SUBTOTAL (1)** (\$) 770

**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

Total Claims:  -20\*\* =  X  =   
 Independent Claims:  -3\*\* =  X  =   
 Multiple Dependent:  =

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1202	18	2202	9	Claims in excess of 20	
1201	86	2201	43	Independent claims in excess of 3	
1203	290	2203	145	Multiple dependent claim, if not paid	
1204	86	2204	43	** Reissue independent claims over original patent	
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent	

**SUBTOTAL (2)** (\$) 0

\*\*or number previously paid, if greater; For Reissues, see above

<b>SUBMITTED BY</b>		(Complete if applicable)	
Name (Print/Type)	Jonathan LACK	Registration No. (Attorney/Agent)	49065
Signature		Telephone	416.340.6192
		Date	February 24, 2004

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<b>TOTAL AMOUNT OF PAYMENT</b>		<b>(\$)</b> 810

<p><b>METHOD OF PAYMENT</b> (check all that apply)</p> <p> <input type="checkbox"/> Check                   <input type="checkbox"/> Credit card                   <input type="checkbox"/> Money Order                   <input type="checkbox"/> Other                   <input type="checkbox"/> None             </p> <p><input checked="" type="checkbox"/> Deposit Account:</p> <p>                 Deposit Account Number: 195113                  Deposit Account Name: OGILVY RENAULT             </p> <p>The Director is authorized to: (check all that apply)</p> <p> <input checked="" type="checkbox"/> Charge fee(s) indicated below                   <input checked="" type="checkbox"/> Credit any overpayments  <input checked="" type="checkbox"/> Charge any additional fee(s) or any underpayment of fee(s)  <input type="checkbox"/> Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.             </p>	<p><b>FEE CALCULATION</b> (continued)</p> <p><b>3. ADDITIONAL FEES</b></p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>1051</td><td>130</td><td>2051</td><td>65</td><td>Surcharge - late filing fee or oath</td><td></td></tr> <tr><td>1052</td><td>50</td><td>2052</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet</td><td></td></tr> <tr><td>1053</td><td>130</td><td>1053</td><td>130</td><td>Non-English specification</td><td></td></tr> <tr><td>1812</td><td>2,520</td><td>1812</td><td>2,520</td><td>For filing a request for ex parte reexamination</td><td></td></tr> <tr><td>1804</td><td>920*</td><td>1804</td><td>920*</td><td>Requesting publication of SIR prior to Examiner action</td><td></td></tr> <tr><td>1805</td><td>1,840*</td><td>1805</td><td>1,840*</td><td>Requesting publication of SIR after Examiner action</td><td></td></tr> <tr><td>1251</td><td>110</td><td>2251</td><td>55</td><td>Extension for reply within first month</td><td></td></tr> <tr><td>1252</td><td>420</td><td>2252</td><td>210</td><td>Extension for reply within second month</td><td></td></tr> <tr><td>1253</td><td>850</td><td>2253</td><td>475</td><td>Extension for reply within third month</td><td></td></tr> <tr><td>1254</td><td>1,480</td><td>2254</td><td>740</td><td>Extension for reply within fourth month</td><td></td></tr> <tr><td>1255</td><td>2,010</td><td>2255</td><td>1,005</td><td>Extension for reply within fifth month</td><td></td></tr> <tr><td>1401</td><td>330</td><td>2401</td><td>165</td><td>Notice of Appeal</td><td></td></tr> <tr><td>1402</td><td>330</td><td>2402</td><td>165</td><td>Filing a brief in support of an appeal</td><td></td></tr> <tr><td>1403</td><td>280</td><td>2403</td><td>145</td><td>Request for oral hearing</td><td></td></tr> <tr><td>1451</td><td>1,510</td><td>1451</td><td>1,510</td><td>Petition to institute a public use proceeding</td><td></td></tr> <tr><td>1452</td><td>110</td><td>2452</td><td>55</td><td>Petition to revive - unavoidable</td><td></td></tr> <tr><td>1453</td><td>1,330</td><td>2453</td><td>665</td><td>Petition to revive - unintentional</td><td></td></tr> <tr><td>1501</td><td>1,330</td><td>2501</td><td>665</td><td>Utility issue fee (or reissue)</td><td></td></tr> <tr><td>1502</td><td>480</td><td>2502</td><td>240</td><td>Design issue fee</td><td></td></tr> <tr><td>1503</td><td>640</td><td>2503</td><td>320</td><td>Plant issue fee</td><td></td></tr> <tr><td>1460</td><td>130</td><td>1460</td><td>130</td><td>Petitions to the Commissioner</td><td></td></tr> <tr><td>1807</td><td>50</td><td>1807</td><td>50</td><td>Processing fee under 37 CFR 1.17(e)</td><td></td></tr> <tr><td>1806</td><td>180</td><td>1806</td><td>180</td><td>Submission of Information Disclosure Stmt</td><td></td></tr> <tr><td>8021</td><td>40</td><td>8021</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td>40</td></tr> <tr><td>1809</td><td>770</td><td>2809</td><td>385</td><td>Filing a submission after final rejection (37 CFR 1.129(a))</td><td></td></tr> <tr><td>1810</td><td>770</td><td>2810</td><td>385</td><td>For each additional invention to be examined (37 CFR 1.129(b))</td><td></td></tr> <tr><td>1801</td><td>770</td><td>2801</td><td>385</td><td>Request for Continued Examination (RCE)</td><td></td></tr> <tr><td>1802</td><td>900</td><td>1802</td><td>900</td><td>Request for expedited examination of a design application</td><td></td></tr> </tbody> </table> <p>Other fee (specify) _____</p> <p>*Reduced by Basic Filing Fee Paid</p> <p><b>SUBTOTAL (3)</b> (\$) 40</p>	Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	1051	130	2051	65	Surcharge - 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<b>SUBTOTAL (1)</b>					<b>(\$)</b> 770

**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

Total Claims Independent Claims Multiple Dependent

Extra Claims -20\*\* = \_\_\_\_\_ X \_\_\_\_\_ = \_\_\_\_\_

Extra Claims -3\*\* = \_\_\_\_\_ X \_\_\_\_\_ = \_\_\_\_\_

Fee from below \_\_\_\_\_

Fee Paid \_\_\_\_\_

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<b>SUBTOTAL (2)</b>					<b>(\$)</b> 0

\*\* or number previously paid, if greater; For Reissues, see above

<b>SUBMITTED BY</b>		(Complete if applicable)	
Name (Print/Type)	Jonathan LACK	Registration No. (Attorney/Agent)	49065
Signature	<i>[Signature]</i>	Telephone	416.340.6192
		Date	February 24, 2004

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PREVIEWING A NEW EVENT ON A SMALL SCREEN DEVICE

Cross-reference to Related Application

5 [0001] This application claims the benefit of U.S. Provisional Patent Application No. 60/525,959 filed December 01, 2003.

Field of the Invention

10 [0002] The present invention relates generally to wireless communication devices, and more particularly to a graphical user interface for controlling such devices.

Description of the Related Art

15 [0003] With the proliferation of communications services available on wireless mobile devices, it becomes increasingly complex to create a single device that can excel at many different functions. Many critics claim that a wireless telephone device can never make a good handheld personal digital assistant (PDA) device and a handheld PDA device will never make a good wireless telephone. It is also said that 20 only teenagers are using Instant Messaging (IM) services or Short Message Services (SMS) to exchange messages with friends and acquaintances and that such users should get an entirely different wireless mobile device. However, many users of wireless handheld devices desire to have multiple 25 services and functionality on a single device.

[0004] Representing multiple services and functions to a user on a single wireless mobile device presents a number of

challenges to the designer of a user interface, particularly a graphical user interface (GUI), for controlling the device. Wireless devices are usually small relative to less portable computing devices such as laptops and desktop computers. 5 Inherently then, a visual display such as an LCD or other screen component of the wireless mobile device has a small display area.

**[0005]** Typically, GUIs for wireless mobile devices comprise a main or home screen and one or more sub-screens 10 that may be navigated from the main screen. Notification icons are often rendered on a portion of the main screen to indicate a new event such as the receipt of a new IM message, electronic mail (e-mail) or other service event such as a calendar reminder or alarm and other status information such 15 as time, date and battery life. For each type of service or function available via the device, a graphical image or icon is often rendered on a major portion of the main screen, which icon may be selected using a cursor or other means to launch a specific GUI for the selected service or function.

20 **[0006]** A user may subscribe to multiple similar services and have these services available via a single wireless mobile device. For example, a user may subscribe to more than one Instant Message-type service, such as AOL™ Instant Messenger (AIM™), ICQ™, Microsoft Network™ (MSN™), Yahoo!™ 25 Messenger and Quick Messaging™. Alternatively or as well, a user may have a corporate and personal e-mail account coupled to the wireless mobile device. When a user is notified of a new event such as a new IM message, the user is required to check each of their IM service applications separately, via

their respective activation icons, to determine which IM service is responsible for the new event. Checking each service is inconvenient. Moreover, there is a demand to have information made available to a user quicker than previously available in order to optimize the control of the wireless device.

**[0007]** Accordingly, there is a resulting need for a method and apparatus that addresses one or more of these shortcomings.

10 SUMMARY

**[0008]** The invention relates to a method, graphical user interface and apparatus for notifying and previewing a new event on a display of a device.

**[0009]** In accordance with a first aspect of the invention, there is provided a method for a computing device having a plurality of applications for managing respective events, individual ones of said applications each represented by an application icon on a screen of a graphical user interface for the device. The method for previewing new events on the screen comprises, in response to a new event of a one of said applications, visually modifying the one of said applications' icon to notify of the new event. In response to the visually modified icon, a user may invoke the one of said applications.

25 **[0010]** The one of said applications may be monitored to determine an occurrence of the new event. Further, the first aspect may comprise determining a visual modification for the one of said applications' icon in response to the new event;

and using said visual modification when visually modifying. Determining a visual modification may comprise maintaining a count of new events for the one of said applications and visually modifying the one of said applications' icon may  
5 comprise displaying a preview of a content of the new event. Displaying a preview can be responsive to a user action, such as an interaction with the modified icon. Displaying a preview of a content can comprise displaying a dialog box over a portion of the main screen.

10 **[0011]** In one embodiment, the method comprises, in response to an activation of the one of said applications having its icon visually modified to notify of the new event, automatically navigating through the one of said applications to the new event.

15 **[0012]** In one embodiment, the device comprises at least one of a data communication device and a voice communication device and at least some of said plurality of applications manage communications capabilities associated with the device. As such, the events of said at least some of said  
20 plurality of applications comprise communication events. For example, the device may be a wireless device.

**[0013]** In a second aspect, in a computing device having a controller coupled to a memory, the memory storing a plurality of applications for managing respective events,  
25 there is provided a graphical user interface (GUI) for the applications. The GUI comprises a main screen for displaying on the computing device, the screen comprising a plurality of icons, each icon associated with one of the plurality of applications; at least one monitoring component to determine



the occurrence of new events of the applications; and at least one icon modifying component to modify a one of the icons for display on the main screen in response to a new event of the application associated with the one of the icons  
5 to notify of the new event.

**[0014]** In a third aspect there is provided a wireless handheld device comprising a controller; a memory coupled to the controller, the memory storing a plurality of applications for execution by the controller to manage  
10 respective events and a graphical user interface (GUI) for the applications. The GUI comprises a main screen for displaying on the device, the screen comprising a plurality of icons, each icon associated with one of the plurality of applications; at least one monitoring component to determine  
15 the occurrence of new events of the applications; and at least one icon modifying component to modify a one of the icons for display on the main screen in response to a new event of the application associated with the one of the icons to notify of the new event.

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BRIEF DESCRIPTION OF THE DRAWINGS

**[0015]** Embodiments of present invention will now be described by way of example with reference to attached figures, wherein:

25 **[0016]** FIG. 1 is a block diagram which illustrates pertinent components of a wireless communication device which communicates within a wireless communication network in accordance with the prior art;

**[0017]** FIG. 2 is a more detailed diagram of a preferred wireless communication device of FIG. 1 in accordance with the prior art;

**[0018]** FIG. 3 is an illustration of an exemplary main screen, in accordance with the invention, for a wireless communication device such as the devices of FIGS. 1 and 2;

**[0019]** FIG. 4 is an illustration of the main screen of FIG. 3 after a new event;

**[0020]** FIG. 5 is an illustration of the main screen of FIG. 4 following a user action;

**[0021]** FIG. 6 is an illustration of a change to an IM application icon when the user selects the application icon with the new event;

**[0022]** FIG. 7 is an illustration of multiple new events within one application;

**[0023]** FIG. 8 is an illustration of further embodiments for previewing new events on the main screen; and

**[0024]** FIGS. 9A and 9B are flowcharts which describe a method in accordance with the invention.

20 DETAILED DESCRIPTION

**[0025]** Method and apparatus for previewing new events in a computing device having a plurality of applications for managing respective events are described. Individual applications are each represented by an application icon on a screen of a graphical user interface for the device. When a new event occurs, particularly when the new event relates to a specific one of a plurality of similar applications, the

invention provides a convenient way to denote which application relates to the event. In response to a new event of a one of the applications, the application's icon is visually modified to notify of the new event. A visual  
5 modification may be determined in response to the new event, for example, to preview a content of the event. The visual modification may include a count of all new events that remain to be disposed. On a selection of the visually modified icon, additional previewing may be provided.  
10 Activation of the application having a visually modified application icon may be configured to automatically initiate the application at the new event.

**[0026]** FIG. 1 is a block diagram of a communication system 100 which includes a mobile station 102 which communicates  
15 through a wireless communication network 104 symbolized by a station. Mobile station 102 preferably includes a visual display 112, a keyboard 114, and perhaps one or more auxiliary user interfaces (UI) 116, each of which are coupled to a controller 106. Controller 106 is also coupled to radio  
20 frequency (RF) transceiver circuitry 108 and an antenna 110.

**[0027]** Typically, controller 106 is embodied as a central processing unit (CPU) which runs operating system software in a memory component (not shown). Controller 106 will normally control overall operation of mobile station 102, whereas  
25 signal processing operations associated with communication functions are typically performed in RF transceiver circuitry 108. Controller 106 interfaces with device display 112 to display received information, stored information, user inputs, and the like. Keyboard 114, which may be a telephone

type keypad or full alphanumeric keyboard, is normally provided for entering data for storage in mobile station 102, information for transmission to network 104, a telephone number to place a telephone call, commands to be executed on  
5 mobile station 102, and possibly other or different user inputs.

**[0028]** Mobile station 102 sends communication signals to and receives communication signals from the wireless network 104 over a wireless link via antenna 110. RF transceiver  
10 circuitry 108 performs functions similar to those of a base station and a base station controller (BSC) (not shown), including for example modulation/demodulation and possibly encoding/decoding and encryption/decryption. It is also contemplated that RF transceiver circuitry 108 may perform  
15 certain functions in addition to those performed by a BSC. It will be apparent to those skilled in art that RF transceiver circuitry 108 will be adapted to particular wireless network or networks in which mobile station 102 is intended to operate.

20 **[0029]** Mobile station 102 includes a battery interface (IF) 134 for receiving one or more rechargeable batteries 132. Battery 132 provides electrical power to electrical circuitry in mobile station 102, and battery IF 132 provides for a mechanical and electrical connection for battery 132.  
25 Battery IF 132 is coupled to a regulator 136 which regulates power to the device. When mobile station 102 is fully operational, an RF transmitter of RF transceiver circuitry 108 is turned on only when it is sending to network, and is otherwise turned off or placed in a low-power mode to

conserve power. Similarly, an RF receiver of RF transceiver circuitry 108 is typically periodically turned off to conserve power until it is needed to receive signals or information (if at all) during designated time periods.

5 **[0030]** Mobile station 102 operates using a Subscriber Identity Module (SIM) 140 which is connected to or inserted in mobile station 102 at a SIM interface (IF) 142. SIM 140 is one type of a conventional "smart card" used to identify an end user (or subscriber) of mobile station 102 and to  
10 personalize the device, among other things. Without SIM 140, the mobile station terminal is not fully operational for communication through the wireless network. By inserting SIM 140 into mobile station 102, an end user can have access to any and all of his/her subscribed services. SIM 140  
15 generally includes a processor and memory for storing information. Since SIM 140 is coupled to SIM IF 142, it is coupled to controller 106 through communication lines 144. In order to identify the subscriber, SIM 140 contains some user parameters such as an International Mobile Subscriber  
20 Identity (IMSI). An advantage of using SIM 140 is that end users are not necessarily bound by any single physical mobile station. SIM 140 may store additional user information for the mobile station as well, including datebook (or calendar) information and recent call information.

25 **[0031]** Mobile station 102 may consist of a single unit, such as a data communication device, a multiple-function communication device with data and voice communication capabilities, a personal digital assistant (PDA) enabled for wireless communication, or a computer incorporating an

internal modem. Alternatively, mobile station 102 may be a multiple-module unit comprising a plurality of separate components, including but in no way limited to a computer or other device connected to a wireless modem. In particular, 5 for example, in the mobile station block diagram of FIG. 1, RF transceiver circuitry 108 and antenna 110 may be implemented as a radio modem unit that may be inserted into a port on a laptop computer. In this case, the laptop computer would include display 112, keyboard 114, one or more 10 auxiliary UIs 116, and controller 106 embodied as the computer's CPU. It is also contemplated that a computer or other equipment not normally capable of wireless communication may be adapted to connect to and effectively assume control of RF transceiver circuitry 108 and antenna 15 110 of a single-unit device such as one of those described above. Such a mobile station 102 may have a more particular implementation as described later in relation to mobile station 202 of FIG. 2.

**[0032]** FIG. 2 is a detailed block diagram of a preferred 20 mobile station 202. Mobile station 202 is preferably a two-way communication device having at least voice and advanced data communication capabilities, including the capability to communicate with other computer systems. Depending on the functionality provided by mobile station 202, it may be 25 referred to as a data messaging device, a two-way pager, a cellular telephone with data messaging capabilities, a wireless Internet appliance, or a data communication device (with or without telephony capabilities). Mobile station 202

may communicate with any one of a plurality of fixed transceiver stations 200 within its geographic coverage area.

**[0033]** Mobile station 202 will normally incorporate a communication subsystem 211, which includes a receiver, a transmitter, and associated components, such as one or more (preferably embedded or internal) antenna elements and, local oscillators (LOs), and a processing module such as a digital signal processor (DSP) (all not shown). Communication subsystem 211 is analogous to RF transceiver circuitry 108 and antenna 110 shown in FIG. 1. As will be apparent to those skilled in field of communications, particular design of communication subsystem 211 depends on the communication network in which mobile station 202 is intended to operate.

**[0034]** Network access is associated with a subscriber or user of mobile station 202 and therefore mobile station 202 requires a Subscriber Identity Module or "SIM" card 262 to be inserted in a SIM IF 264 in order to operate in the network. SIM 262 includes those features described in relation to FIG. 1. Mobile station 202 is a battery-powered device so it also includes a battery IF 254 for receiving one or more rechargeable batteries 256. Such a battery 256 provides electrical power to most if not all electrical circuitry in mobile station 202, and battery IF 254 provides for a mechanical and electrical connection for it. The battery IF 254 is coupled to a regulator (not shown) which provides power V+ to all of the circuitry.

**[0035]** Mobile station 202 includes a microprocessor 238 (which is one implementation of controller 106 of FIG. 1) which controls overall operation of mobile station 202.

Communication functions, including at least data and voice communications, are performed through communication subsystem 211. Microprocessor 238 also interacts with additional device subsystems such as a display 222, a flash memory 224, a random access memory (RAM) 226, auxiliary input/output (I/O) subsystems 228, a serial port 230, a keyboard 232, a speaker 234, a microphone 236, a short-range communications subsystem 240, and any other device subsystems generally designated at 242. Some of the subsystems shown in FIG. 2 perform communication-related functions, whereas other subsystems may provide "resident" or on-device functions. Notably, some subsystems, such as keyboard 232 and display 222, for example, may be used for both communication-related functions, such as entering a text message for transmission over a communication network, and device-resident functions such as a calculator or task list. Operating system software used by microprocessor 238 is preferably stored in a persistent store such as flash memory 224, which may alternatively be a read-only memory (ROM) or similar storage element (not shown). Those skilled in the art will appreciate that the operating system, specific device applications, or parts thereof, may be temporarily loaded into a volatile store such as RAM 226.

**[0036]** Microprocessor 238, in addition to its operating system functions, preferably enables execution of software applications on mobile station 202. A predetermined set of applications which control basic device operations, including at least data and voice communication applications, will normally be installed on mobile station 202 during its



manufacture. A preferred application that may be loaded onto mobile station 202 may be a personal information manager (PIM) application having the ability to organize and manage data items relating to the user such as, but not limited to, 5 instant messaging (IM), e-mail, calendar events, voice mails, appointments, and task items. Naturally, one or more memory stores are available on mobile station 202 and SIM 262 to facilitate storage of PIM data items and other information.

**[0037]** The PIM application preferably has the ability to 10 send and receive data items via the wireless network. In a preferred embodiment, PIM data items are seamlessly integrated, synchronized, and updated via the wireless network, with the mobile station user's corresponding data items stored and/or associated with a host computer system 15 thereby creating a mirrored host computer on mobile station 202 with respect to such items. This is especially advantageous where the host computer system is the mobile station user's office computer system. Additional applications may also be loaded onto mobile station 202 20 through network 200, an auxiliary I/O subsystem 228, serial port 230, short-range communications subsystem 240, or any other suitable subsystem 242, and installed by a user in RAM 226 or preferably a non-volatile store (not shown) for execution by microprocessor 238. Such flexibility in 25 application installation increases the functionality of mobile station 202 and may provide enhanced on-device functions, communication-related functions, or both. For example, secure communication applications may enable

electronic commerce functions and other such financial transactions to be performed using mobile station 202.

**[0038]** In a data communication mode, a received signal such as a text message, an e-mail message, or web page download will be processed by communication subsystem 211 and input to microprocessor 238. Microprocessor 238 will preferably further process the signal for output to display 222, to auxiliary I/O device 228 or both as described further herein below with reference to FIGs. 3-9. A user of mobile station 202 may also compose data items, such as e-mail messages, for example, using keyboard 232 in conjunction with display 222 and possibly auxiliary I/O device 228. Keyboard 232 is preferably a complete alphanumeric keyboard and/or telephone-type keypad. These composed items may be transmitted over a communication network through communication subsystem 211.

**[0039]** For voice communications, the overall operation of mobile station 202 is substantially similar, except that the received signals would be output to speaker 234 and signals for transmission would be generated by microphone 236. Alternative voice or audio I/O subsystems, such as a voice message recording subsystem, may also be implemented on mobile station 202. Although voice or audio signal output is preferably accomplished primarily through speaker 234, display 222 may also be used to provide an indication of the identity of a calling party, duration of a voice call, or other voice call related information, as some examples.

**[0040]** Serial port 230 in FIG. 2 is normally implemented in a personal digital assistant (PDA)-type communication

device for which synchronization with a user's desktop computer is a desirable, albeit optional, component. Serial port 230 enables a user to set preferences through an external device or software application and extends the capabilities of mobile station 202 by providing for information or software downloads to mobile station 202 other than through a wireless communication network. The alternate download path may, for example, be used to load an encryption key onto mobile station 202 through a direct and thus reliable and trusted connection to thereby provide secure device communication.

**[0041]** Short-range communications subsystem 240 of FIG. 2 is an additional optional component which provides for communication between mobile station 202 and different systems or devices, which need not necessarily be similar devices. For example, subsystem 240 may include an infrared device and associated circuits and components, or a Bluetooth™ communication module to provide for communication with similarly-enabled systems and devices. Bluetooth™ is a registered trademark of Bluetooth SIG, Inc.

**[0042]** In accordance with an embodiment of the invention, mobile station 202 is configured for sending and receiving data items and includes a PIM for organizing and managing data items relating to the user such as, but not limited to, instant messaging (IM), e-mail, calendar events, calendar appointments, and task items, etc. By way of example, mobile station 202 is configured for three instant messaging services and two e-mail services to which the user subscribes. To provide a user-friendly environment to control

the operation of mobile station 202, PIM together with the operation system and various software applications resident on the station 202 provides a GUI having a main screen and a plurality of sub-screens navigable from the main screen.

5 [0043] Referring now to FIG. 3, there is an illustration of an exemplary main screen 300, in accordance with an embodiment of the invention, for display 222 of mobile station 202 providing a graphical user interface for controlling mobile station 202. Main screen 300 is divided  
10 into two main portions, namely an application portion 301 for displaying and manipulating icons (e.g. 304-312) for various software applications and functions enabled by mobile station 202 and a mobile station status portion 302 for displaying status information such as time, date, battery and signal  
15 strength, etc. FIG. 3 illustrates three icons 304, 306 and 308 for respective IM applications IM 1, IM 2 and IM 3 and two icons 310, 312 for the two e-mail services Email 1 and Email 2. Associated with each icon is a name (e.g. IM 1) for the application for icon 304. The name may also be presented  
20 in a name region 314 of application portion 301.

[0044] Main screen 300 may not represent all application icons at once in application portion 301. A user may be required to navigate or scroll through the icons of application portion 301 to view additional application icons.

25 [0045] For simplicity, each icon is represented as a circle but persons of ordinary skill in the art will appreciate that other graphics may be used. In the exemplary main screen and GUI of mobile station 202, when a particular icon, e.g. 304, is selected or made active by a user (such as

by manipulating keyboard 232 or other auxiliary I/O device 228), the icon 304 is changed such as by highlighting, shadowing or the like.

**[0046]** In accordance with an embodiment of the invention, an icon (e.g. 304) may be visually modified in response to a new event from the application associated with the icon to provide an immediate notification of the event via a change in main screen 300. The notification may distinguish the icon from icons for similar services to assist a user to control mobile station 202 as described further.

**[0047]** Each of the icons in the main screen 300 of FIG. 3 is in an initial state indicating no new events have occurred and remain unattended by the user. FIG. 4 is an illustration of the main screen 300 after a new IM event, for example, a new message, has arrived into one of the IM applications, namely IM 2, associated with icon 306. In this exemplary embodiment, the new IM message is indicated with a visual modification 400 comprising a bubble, alluding to new received text, and a numeric indicator "1" representing a count of new events, which in this case are unread messages. Persons of ordinary skill in the art will appreciate that a visual modification 400 different from a bubble may be used and the count may represent other information, such as the number of correspondents or "buddies" from which one or more messages have been received but remain unread. In addition to indicating the number of unread messages, this mechanism may be used to reflect other new event information such as additional state information pertaining to the associated application. State information may include whether the user

is currently signed in (and their user name), the state of the connection, and the current state of the user (away vs. available). In an e-mail application, such as associated with one of icons 310, 312, a count may be of unread e-mail messages or distinct senders of unread e-mail. Similar counts may represent SMS messages, appointments, alarms or other events for respective applications.

**[0048]** Optionally, the count may be configurable for each application or instance thereof. For application icon 304 it may identify the number of distinct senders of unread IM messages and for application icon 308 distinct unread IM messages.

**[0049]** FIG. 5 is an illustration of IM application icon 306 following a user action. When the user of mobile station 202 moves the focus of main screen from icon 304 through 306 and 308 to highlight phone icon 502, visual modification 400 persists at icon 306 to maintain the visual modification and remind the user of the unread message. Preferably, only once the user activates an application and reads the unread message is the visual modification changed, for example, to decrease the count and, if applicable, remove the modification if the count is zero.

**[0050]** FIG. 6 is an illustration of main screen 300 when IM application icon 306 having an unread message is highlighted. Upon selection of icon 306, in addition to highlighting the icon, a dialog box 602 comprising a message preview 604 of at least a portion of the unread message is displayed. The opening of the dialog box 604 may be briefly delayed after icon 306 is brought in focus by the user. If a

dialog box is opened too quickly as a user navigates among the icons, navigation may be preempted before the user navigates to a particular icon of choice. Dialog box 604 is opened at name region 314 though persons skilled in the art will recognize that another region may be selected to position the dialog box 604. By way of example, message preview 604 in dialog box 602 shows the application service (i.e. "AIM" for AOL Instant Messenger) the correspondent sending the message (i.e. "red98") and a part of the unread message (i.e. "See you at 4:00...").

**[0051]** Fig. 7 shows a dialog box 602 for an IM application 306 having two unread messages indicated at visual modification 400. Dialog box 602 comprises message previews 604 and 704. Due to the inherent size of main screen 300 and other considerations apparent to those skilled in the art, there is an upper limit to the number of unread messages that may be previewed in such a manner. This limit may be optionally configurable by a user within a predetermined range or simply configured to a maximum size based on the available screen space, font, etc.

**[0052]** Optionally, in accordance with an embodiment of the invention, a user may be enabled to "jump" (i.e. automatically navigate) to the unread message directly from the application icon on the main screen, eliminating any intervening screens that may normally be navigated to read messages when navigating the GUI for the associated application. For example, highlighted icon 306 may be activated as per normal (e.g. selecting "enter" on keyboard 232) and the application initiated to start at an unread

message (e.g. most or least recent). The application's initial screen or buddies list may be skipped. The opportunity to "jump" may be time-limited and enabled only for a short period of time immediately following the  
5 occurrence of the new event, such as from about a few seconds to about 30 seconds. The "jump" activation anticipates the user's need to see the unread message.

**[0053]** FIG. 8 is an illustration of another embodiment for previewing events on a main screen of a mobile station such as station 202. In this embodiment, two new events, one for  
10 each of IM application icons 304, 306 are indicated via respective visual modifications 802 and 804. Visual modification 802 comprises an event count, namely a count of unread messages and a message preview providing a sender  
15 identity and a portion of the unread message. Similarly though differently modification 804 comprises an event count and state preview indicating IM correspondent buddy Tom has signed on. Persons of ordinary skill in the art will appreciate that different events may be visualized on the  
20 main screen in accordance with the invention and these events may depend upon the associated application. However, options may be selectively configurable.

**[0054]** FIGs. 9A and 9B are flowcharts which describe a method in accordance with the invention for the visual  
25 modification of an application icon to represent a new event. FIG 9A represents operations 900 for identifying a new event to determine the modification and FIG 9B represents operations 901 to display the modification.



**[0055]** Operations 900 may be enabled for a service or other application such as IM, e-mail, etc. Though not shown events to be monitored (for example, by a monitoring component of the GUI) and visually indicated (for example, by  
5 a icon modifying component) upon occurrence are pre-determined in accordance with a type or types of events to be notified and previewed. For example, for operations 900 for use in accordance with IM, whether the count is to count distinct unread messages or senders is pre-determined.

10 **[0056]** Beginning at a start block 902 of FIG. 9A, operations 900 commence and the application represented by the application icon to be modified is monitored for a new event (step 904). Persons of ordinary skill in the art will understand that monitoring may be implemented in a number of  
15 fashions depending, in part, on operating system and other system services and the interface between communication subsystem 211 and microprocessor 238. Each of the plurality of applications to be monitored may have a dedicated monitoring component to determine the occurrence of  
20 respective new events. Alternatively, a single monitoring component could monitor each of the applications. Monitoring may be continuously or intermittently performed repeating step 904, until a new event is determined.

**[0057]** Upon a new event, at step 906, the visual  
25 modification to the icon to be changed is determined by an icon modifying component. The counter, if any, is incremented and any visual element or graphic to be overlaid may be configured. For example, text may be obtained for the overlay as exemplified by visual modification 802 of FIG. 8. The

counter may be decremented if the monitored event is the reading of a previously unread message, for example.

**[0058]** User actions that may be performed in association with the modified icon may be set up. For example, text for a dialog box may be obtained in advance and associated with the visual modification for use when the icon is highlighted on the main screen by the user. Should the icon be activated to initiate the application, data to facilitate an immediate automatic jump to the most recent unread message may also be determined in advance if necessary, and associated with the visual modification. The sender of the message may be identified and various user action options prepared for that sender. For example, actions to permit a phone call, e-mail, SMS or other selectable message may be presented to a user highlighting an icon having a visual modification.

**[0059]** At step 908, the visual modification and any associated data, as applicable, is identified to a main screen maintenance portion of the PIM GUI or other application responsible for maintaining the main screen as described further with reference to operations 901. The notification may pass an object or other data sharing mechanism to provide the modification and any associated action data. Thereafter, monitoring continues at step 904 of operation 900. Monitoring may continue for as long as station 202 is powered.

**[0060]** Beginning at step 910, operations 901 commence for main screen maintenance. At step 912 operations monitor to determine that the main screen is active. If yes, operations monitor for a user action or a notification of a visual

modification to an icon (step 914). Upon such an occurrence,  
a new screen is drawn reflecting the visual modification of  
an icon or the user's action (step 916, via Yes branch).  
Exemplary user actions are moving the focus or cursor over  
5 the icons of a main screen to highlight an icon or activating  
an application associated with the icon. The highlighting of  
an icon that was previously visually modified may further  
initiate a dialog box display requiring the drawing of the  
main screen as described above. Once the screen is drawn at  
10 step 916 or if no new icon or user activity is detected at  
step 914, operations 901 repeat at 912. At step 912, if the  
main screen is no longer active, for example because a user  
has navigated to another screen, operations 901 may cease  
(step 918 via No branch) until the main screen is reactivated  
15 (not shown).

**[0061]** Operations 900 illustrate a method aspect of an  
embodiment of the invention monitoring events of a single  
application. As will be understood to those of ordinary skill  
in the art, mobile station 202 may be configured to have  
20 multiple monitors, one for each application, or a single  
monitor configured to monitor all applications for new  
events. Alternatively, each type of application could have a  
monitor for monitoring respective instances of the  
application type. For example, a single monitor could be  
25 configured for monitoring the three IM applications of the  
above-described embodiment, a further monitor may be  
configured for the two e-mail applications, a further for the  
phone application, etc.

**[0062]** While operations 910 are illustrated as waiting to be advised of a new visual modification, other initiation mechanisms could be employed. For example, each application or respective monitor therefor could be queried  
5 for new visual modifications.

**[0063]** Though operation 900 and 901 are described with reference to new events, persons of ordinary skill in the art will appreciate that modifications may be incorporated therein to expire the preview of a new event and display a  
10 default or other icon for an application. For example, with reference to Fig. 8, icon 804 illustrates a status event preview, namely the sign-on of Red98. This preview may be expired automatically after a predetermined period of time. A standard or default icon could be used to replace the preview  
15 icon. Alternatively, a modified preview icon could be used such as one indicating a count of new events. Similarly, it may be desired to persist some new event previews information even upon the happening of subsequent new events for the same application. For example, new event information relating to a  
20 status of the associated application, (e.g. sign-in/out status, availability etc.) may be persisted even as new events occur and are previewed.

**[0064]** The above-described embodiments of the present application are intended to be examples only. Those of skill  
25 in the art may effect alterations, modifications and variations to the particular embodiments without departing from the scope of the application. The invention described herein in the recited claims intend to cover and embrace all suitable changes in technology.

CLAIMS

1. In a computing device having a plurality of applications for managing respective events, individual ones of said applications each represented by an application icon on a screen of a graphical user interface for the device, a method for previewing new events on the screen comprising:

5 in response to a new event of a one of said applications, visually modifying the one of said applications' icon to notify of the new event.

2. The method of claim 1 comprising invoking the one of said applications in response to the visually modified icon.

3. The method of claim 1 comprising monitoring the one of said applications to determine an occurrence of the new event.

4. The method of claim 1 comprising:

determining a visual modification for the one of said applications' icon in response to the new event; and

using said visual modification when visually modifying.

5. The method of claim 4 wherein said determining a visual modification comprises maintaining a count of new events for the one of said applications.

6. The method of claim 1 wherein said visually modifying the one of said applications' icon comprises displaying a preview of a content of the new event.

7. The method of claim 6 wherein said act of displaying a preview is responsive to a user action.

8. The method of claim 7 wherein said displaying a preview of a content comprises displaying a dialog box over a portion  
5 of the screen.

9. The method of claim 1 comprising in response to an activation of the one of said applications having its icon visually modified to notify of the new event, automatically navigating through the one of said applications to the new  
10 event.

10. The method of claim 1 wherein said device comprises at least one of a data communication device and a voice communication device; wherein at least some of said plurality of applications manage communications capabilities associated  
15 with the device and wherein said events of said at least some of said plurality of applications comprise communication events.

11. The method of claim 10 wherein said device comprises a wireless handheld device.

20 12. In a computing device having a controller coupled to a memory, the memory storing a plurality of applications for managing respective events, a graphical user interface (GUI) for the applications, the GUI comprising:

25 a main screen for displaying on the computing device, the screen comprising a plurality of icons, each icon associated with one of the plurality of applications;

at least one monitoring component to determine the occurrence of new events of the applications; and

5 at least one icon modifying component to modify a one of the icons for display on the main screen in response to a new event of the application associated with the one of the icons to notify of the new event.

13. The GUI of claim 12 wherein said GUI maintains a count of new events for respective applications and said icon modifying component modifies in response to said count.

10 14. The GUI of claim 12 wherein the icon modifying component displays a preview of a content of the new event.

15. The GUI of claim 14 wherein the display of a preview is in response to a user interaction with the one of the icons.

15 16. The GUI of claim 15 wherein said display of a preview comprises displaying a dialog box over a portion of the main screen.

17. The GUI of claim 12, wherein in response to a user interaction with the one of the icons, said GUI invokes the application associated with the one of the icons to display  
20 the new event.

18. The GUI of claim 12 wherein said computing device comprises at least one of a data communication device and a voice communication device; wherein at least some of said plurality of applications manage communications capabilities  
25 associated with the computing device and wherein said new

events of said at least some of said plurality of applications comprise communication events.

19. The GUI of claim 18 wherein said computing device comprises a wireless handheld device.

5 20. A wireless handheld device comprising:

a controller;

a memory coupled to the controller, the memory storing a plurality of applications for execution by the controller to manage respective events and a graphical user interface (GUI) for the applications, the GUI comprising:

10

a main screen for displaying on the device, the screen comprising a plurality of icons, each icon associated with one of the plurality of applications;

15

at least one monitoring component to determine the occurrence of new events of the applications; and

at least one icon modifying component to modify a one of the icons for display on the main screen in response to a new event of the application associated with the one of the icons to notify of the new event.

20



Abstract

Method and apparatus for previewing new events in a computing device having a plurality of applications for managing  
5 respective events are described. Individual applications are each represented by an application icon on a screen of a graphical user interface for the device. When a new event occurs, particularly when the new event relates to a specific one of a plurality of similar applications, the invention  
10 provides a convenient way to denote which application relates to the event. In response to a new event of a one of the applications, the application's icon is visually modified to notify of the new event. A visual modification may be determined in response to the new event, for example, to  
15 preview a content of the event. The visual modification may include a count of all new events that remain to be disposed. On a selection of the visually modified icon, additional previewing may be provided. Activation of the application having a visually modified application icon may be configured  
20 to automatically initiate the application at the new event.

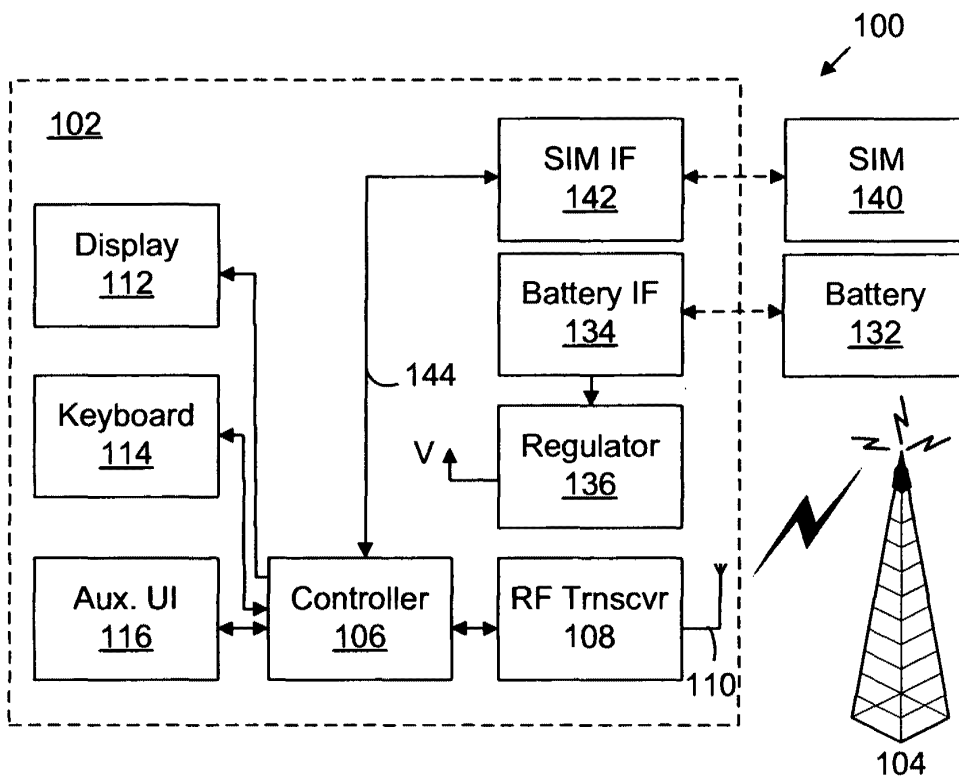


FIG. 1

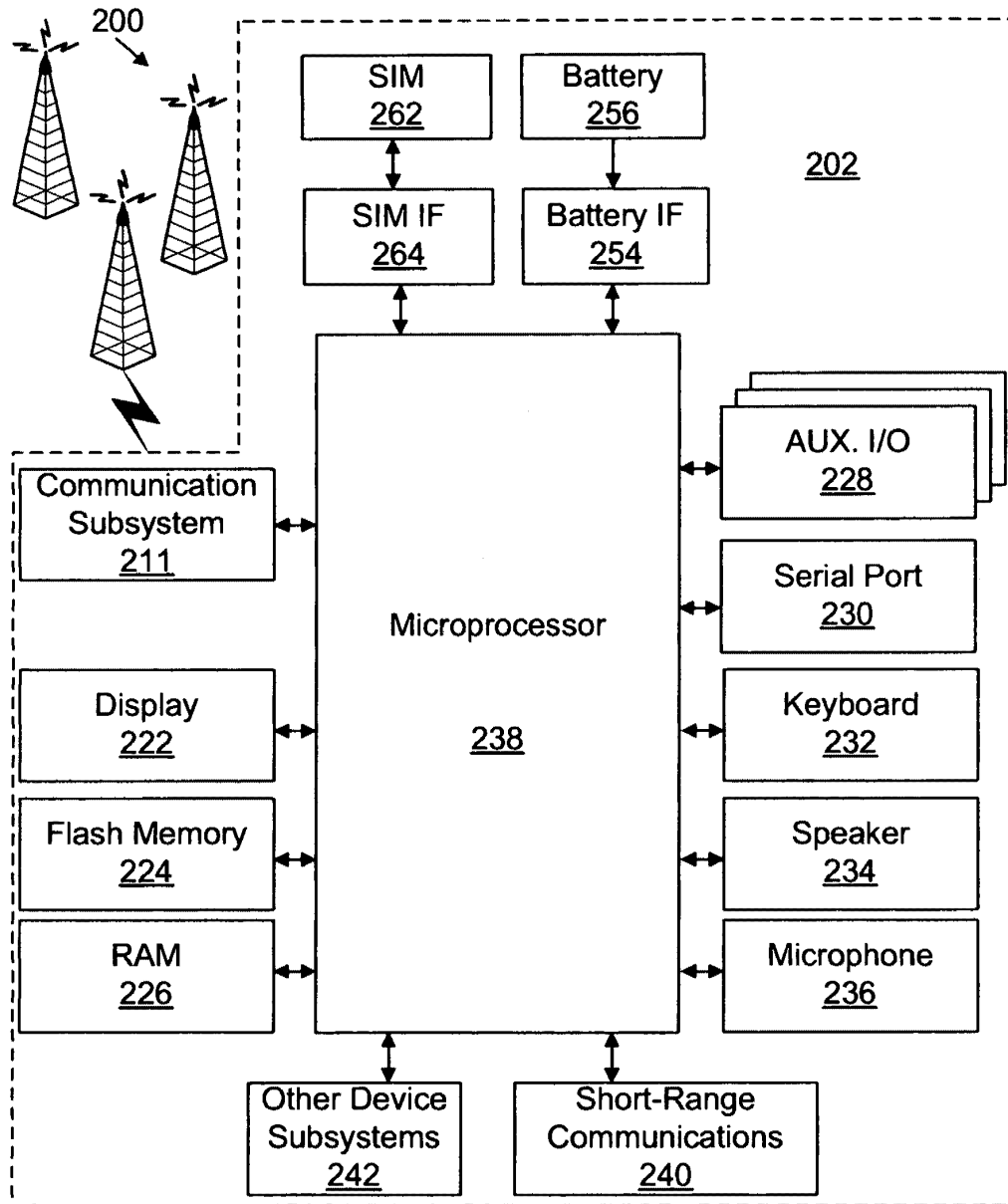


FIG. 2

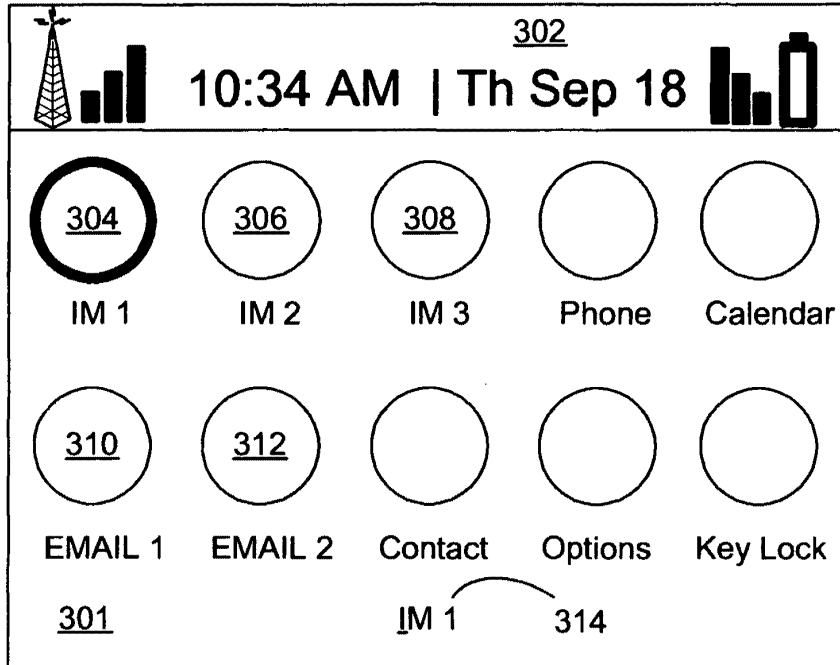


FIG. 3

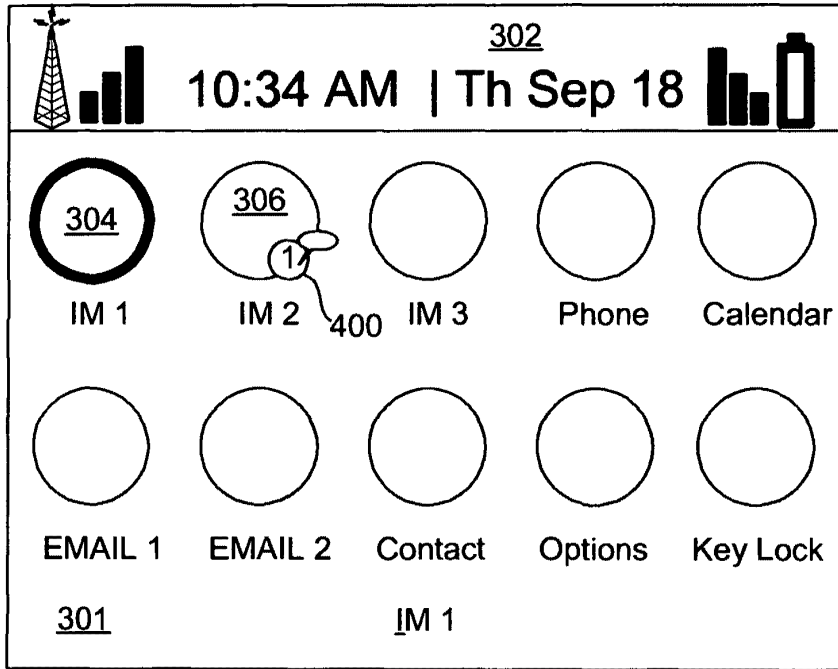


FIG. 4

300

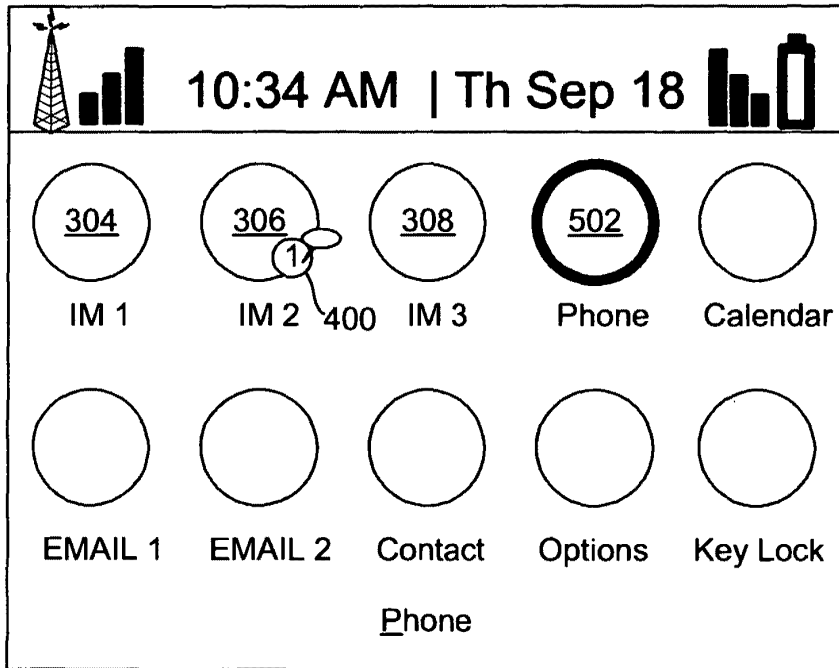


FIG. 5

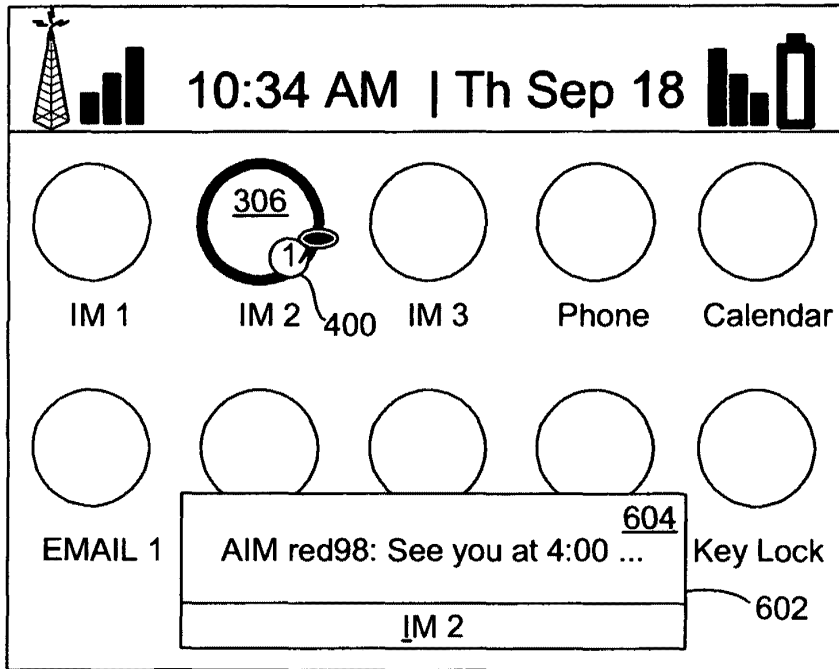


FIG. 6

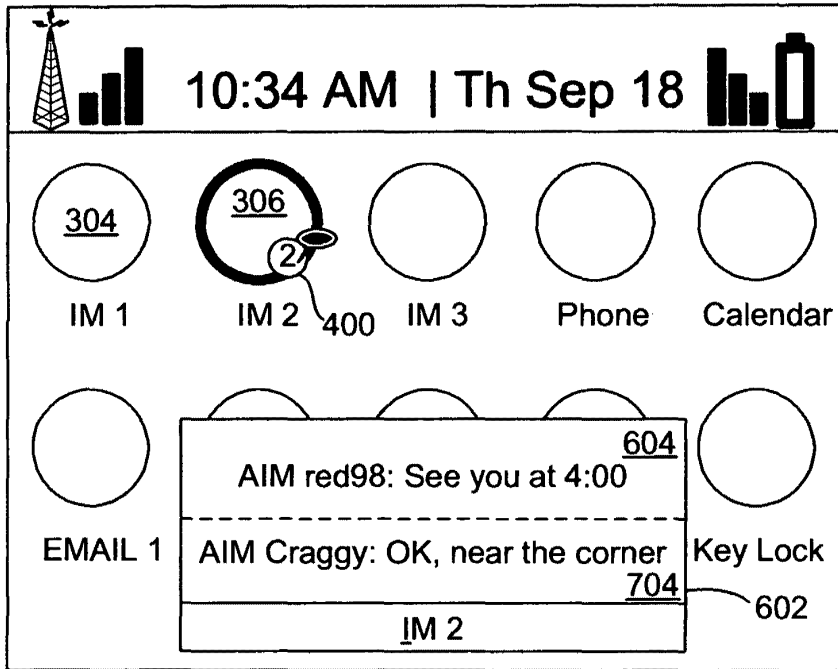


FIG. 7



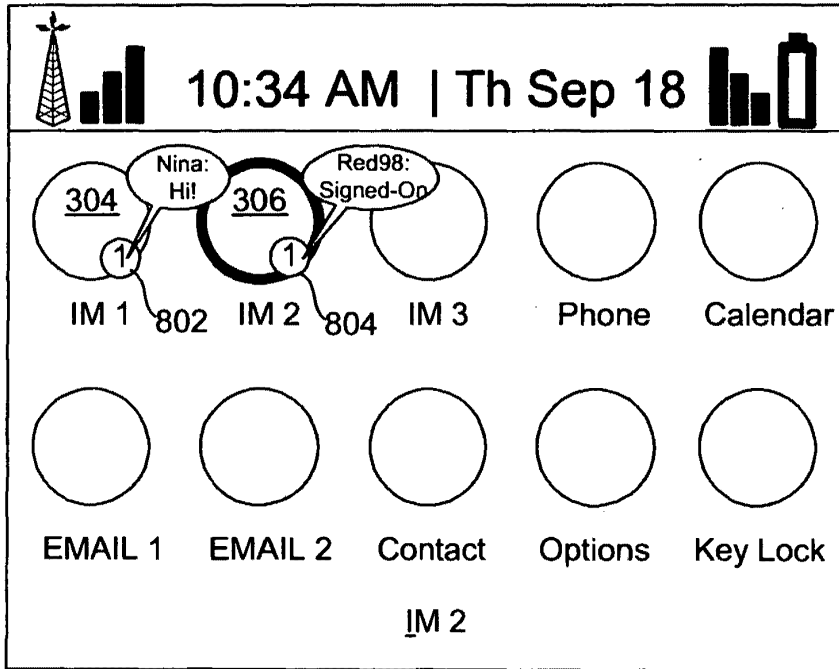


FIG. 8

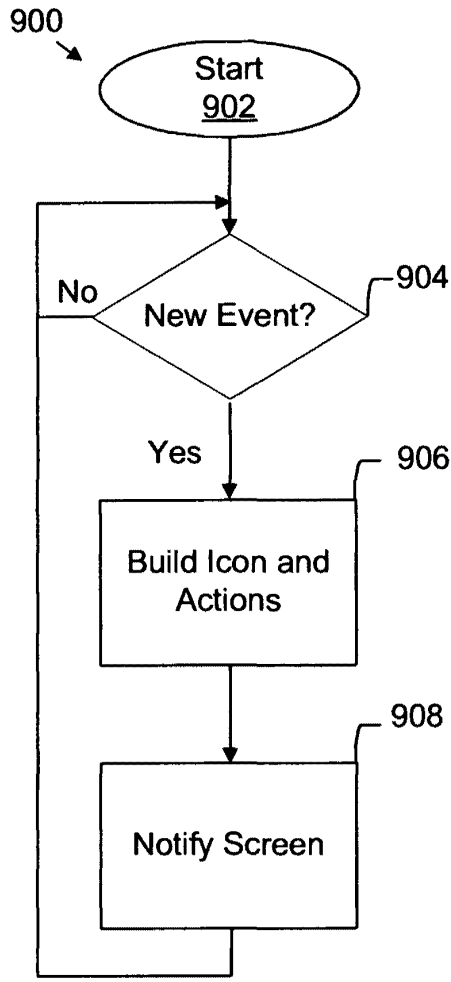


FIG. 9A

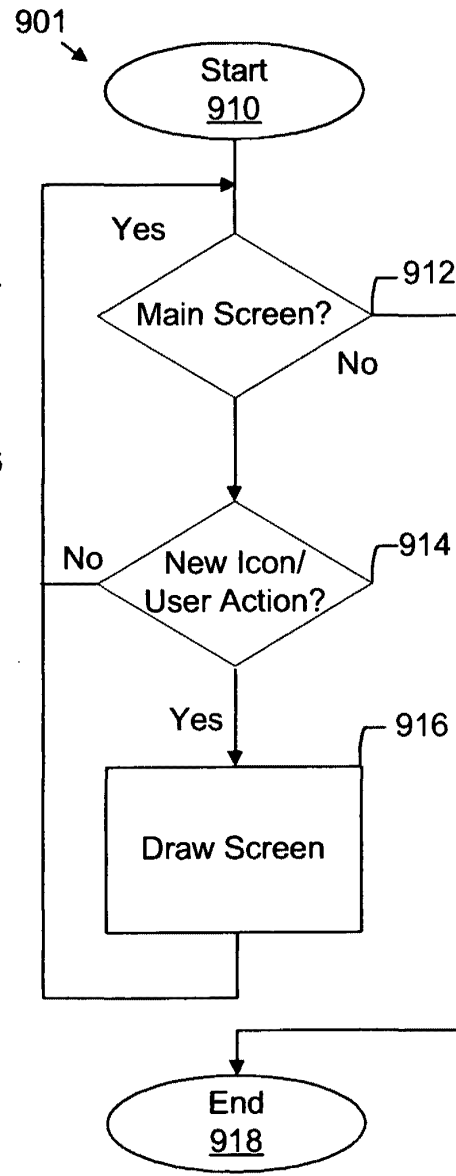


FIG. 9B

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.

**DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)**

<b>Title of Invention</b>	<b>PREVIEWING A NEW EVENT ON A SMALL SCREEN DEVICE</b>
As the below named inventor(s), I/we declare that:	
This declaration is directed to:	
<input checked="" type="checkbox"/> The attached application, or <input type="checkbox"/> Application No. _____, filed on _____ <input type="checkbox"/> as amended on _____ (if applicable);	
I/we believe that I/we am/are the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought;	
I/we have reviewed and understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above;	
I/we acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me/us to be 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.	
All statements made herein of my/own knowledge are true, all statements made herein 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 are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and may jeopardize the validity of the application or any patent issuing thereon.	

<b>FULL NAME OF INVENTOR(S)</b>	
Inventor one:	<u>KLASSEN, Gerhard D.</u>
Signature:	<u><i>Gerhard D. Klassen</i></u> Citizen of: <u>Canada</u>
Inventor two:	<u>DUNK, Craig A.</u>
Signature:	<u><i>Craig Dunk</i></u> Citizen of: <u>Canada</u>
Inventor three:	<u>WORMALD, Christopher R.</u>
Signature:	<u><i>Chris Wormald</i></u> Citizen of: <u>Canada</u>
Inventor four:	_____
Signature:	_____ Citizen of: _____
<input type="checkbox"/> Additional inventors or a legal representative are being named on _____ additional form(s) attached hereto.	

This collection of information is required by 35 U.S.C. 116 and 37 CFR 1.63. 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 1 minute 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.

**BEST AVAILABLE COPY**

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**POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO**

I hereby appoint:

 Practitioners associated with the Customer Number:

020988

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

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).

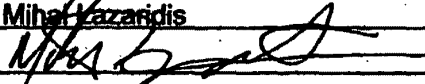
Assignee Name and Address:

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

A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/98 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

Name	Mihai Vazandis		
Signature		Date	16 Feb 2004
Title	President & Co-CEO	Telephone	519-888-7465

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to be (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 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.

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**STATEMENT UNDER 37 CFR 3.73(b)**

Applicant/Patent Owner: Gerhard D. KLASSEN; Craig A. DUNK; Christopher R. WORMALD

Application No./Patent No.: \_\_\_\_\_ Filed/Issue Date: \_\_\_\_\_

Entitled: PREVIEWING A NEW EVENT ON A SMALL SCREEN DEVICE

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.  the assignee of the entire right, title, and interest; or
- 2.  an assignee of less than the entire right, title and interest.  
The extent (by percentage) of its ownership interest is \_\_\_\_\_ %  
in the patent application/patent identified above by virtue of either:

A.  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 thereof is attached.

OR

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

- 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.

Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded 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.

February 24, 2004

Date

416.340.6192

Telephone number

Jonathan Pollack

Typed or printed name



Signature

Patent Agent (Reg. No. 49065)

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 1.14. 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.

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## **APPLICATION DATA SHEET**

### **APPLICATION INFORMATION**

Application Type::	Regular
Subject Matter::	Utility
Suggested Classification::	
Suggested Group Art Unit::	
CD-ROM or CD-R?::	None
Sequence submission?::	None
Title::	PREVIEWING A NEW EVENT ON A SMALL SCREEN DEVICE
Attorney Docket Number::	16813-1US
Request for Early Publication?::	No
Request for Non-Publication?::	No
Suggested Drawing Figure::	6
Total Drawing Sheets::	9
Small Entity?::	No
Petition included?::	No
Secrecy Order in Parent Appl.?::	No

### **APPLICANT INFORMATION**

Applicant Authority Type::	Inventor
Primary Citizenship Country::	Canada
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State or Province of Residence::	Ontario
Country of Residence::	Canada
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City of mailing address::	Waterloo
State or Province of mailing address::	Ontario
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 Country of Residence:: Canada  
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 State or Province of mailing address:: Ontario  
 Postal or Zip Code of mailing address:: N1L 1P2

Applicant Authority Type:: Inventor  
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 Middle name:: R.  
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 State or Province of Residence:: Ontario  
 Country of Residence:: Canada  
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 City of mailing address:: Kitchener  
 State or Province of mailing address:: Ontario  
 Postal or Zip Code of mailing address:: N2K 4J2

**CORRESPONDENCE INFORMATION**

Correspondence Customer Number:: 020988

**REPRESENTATIVE INFORMATION**

Representative Customer Number::	020988	
----------------------------------	--------	--

**DOMESTIC PRIORITY INFORMATION**

Application::	Continuity Type::	Parent Application::	Parent Filing Date::
This Application	An application claiming the benefit under 35 USC 119(e)	60/525,959	December 1, 2003

**ASSIGNEE INFORMATION**

Assignee name::	Research in Motion Limited
Street of mailing address::	295 Phillip Street
City of mailing address::	Waterloo
State or Province of mailing address::	Ontario
Country of Residence::	Canada
Postal or Zip Code of mailing address::	N2L 3W8



PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: **KLASSEN, Gerhard D., et al.** Attorney Docket No.: 16813-1US  
Serial No.: -- Group Art Unit: --  
Filed: **February 24, 2004** Examiner: --  
For: **PREVIEWING A NEW EVENT ON A SMALL SCREEN**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

In compliance with 37 CFR 1.97 and 1.98, Applicants bring to the attention of the U.S. Patent and Trademark Office information listed on the enclosed PTO/SB/08A. Copies of all patent and non-patent citations are enclosed.

Should any fee be required in connection with the filing of this Information Disclosure Statement, the Commissioner is authorized to charge such fee to Deposit Account No. 195113.

Respectfully submitted,



Jonathan Pollack  
Registration No. 49065  
Telephone 416-340-6192  
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jpollack@ogilvyrenault.com  
Suite 1100, P.O. Box 11  
Merrill Lynch Canada Tower  
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Toronto, Ontario  
Canada M5H 3T4

Date: February 24, 2004



PATENT APPLICATION SERIAL NO. \_\_\_\_\_

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE  
FEE RECORD SHEET

02/27/2004 EFLORES 00000039 10784781

01 FC:1001 770.00 DA

PTO-1556  
(5/87)

U.S. Government Printing Office: 2001 — 481-697/59173

Facebook's Exhibit No. Ex. 1113  
0051

**PATENT APPLICATION FEE DETERMINATION RECORD**  
Effective October 1, 2003

Application or Docket Number \_\_\_\_\_

**CLAIMS AS FILED - PART I**

	(Column 1)	(Column 2)
TOTAL CLAIMS	20	
FOR	NUMBER FILED	NUMBER EXTRA
TOTAL CHARGEABLE CLAIMS	20 minus 20 = *	
INDEPENDENT CLAIMS	7 minus 3 = *	
MULTIPLE DEPENDENT CLAIM PRESENT <input type="checkbox"/>		

\* If the difference in column 1 is less than zero, enter "0" in column 2

**SMALL ENTITY TYPE**

**OR OTHER THAN SMALL ENTITY**

RATE	FEE	OR	RATE	FEE
BASIC FEE	385.00	OR	BASIC FEE	770.00
X\$ 9=		OR	X\$18=	
X43=		OR	X86=	
+145=		OR	+290=	
TOTAL		OR	TOTAL	770

**CLAIMS AS AMENDED - PART II**

	(Column 1)	(Column 2)	(Column 3)
<b>AMENDMENT A</b>	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total *	Minus **	=
	Independent *	Minus ***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

v. 12 - 20

**SMALL ENTITY**

**OR OTHER THAN SMALL ENTITY**

RATE	ADDITIONAL FEE	OR	RATE	ADDITIONAL FEE
X\$ 9=		OR	X\$18=	
X43=		OR	X86=	
+145=		OR	+290=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

	(Column 1)	(Column 2)	(Column 3)
<b>AMENDMENT B</b>	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total *	Minus **	=
	Independent *	Minus ***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

RATE	ADDITIONAL FEE	OR	RATE	ADDITIONAL FEE
X\$ 9=		OR	X\$18=	
X43=		OR	X86=	
+145=		OR	+290=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. FEE	

	(Column 1)	(Column 2)	(Column 3)
<b>AMENDMENT C</b>	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA
	Total *	Minus **	=
	Independent *	Minus ***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

RATE	ADDITIONAL FEE	OR	RATE	ADDITIONAL FEE
X\$ 9=		OR	X\$18=	
X43=		OR	X86=	
+145=		OR	+290=	
TOTAL ADDIT. FEE		OR	TOTAL ADDIT. 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.

IFW



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Research In Motion Limited** Attorney Docket No.: 16813-1US  
Serial No.: 10/784,781 Group Art Unit: 2661  
Filed: **February 24, 2004** Examiner: --  
For: **PREVIEWING A NEW EVENT ON A SMALL SCREEN DEVICE**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

Pursuant to the duty of disclosure under 37 CFR 1.56, a copy of the non-U.S. reference listed on the attached Form PTO-1449 is submitted herewith.

It is hereby certified in accordance with 37 CFR 1.97(e) that no item of information contained in this Information Disclosure Statement was known to the Applicant or any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of this statement. The references were cited in the International Search Report mailed October 15, 2004 by the EPO in connection with the corresponding PCT International Application No. PCT/CA2004/000263. A copy of the International Search Report is also enclosed.

In accordance with 37 CFR 1.97(h), the submission of the present information is not to be construed as an admission that such information is, or is considered to be, material to patentability.

The Examiner is kindly requested to consider these references during the examination of the above-identified application, making the references of record, and to return an initialed copy of Form PTO-1449 to the undersigned agent. It is not believe that any fee is required in connection with the filing of this Information Disclosure Statement.

Respectfully submitted,  
OGILVY RENAULT

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Toronto, Ontario M5J 2Z4

Date: October 25, 2004



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

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Substitute for form 1449/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	10/784,781
		Filing Date	02/24/2004
		First Named Inventor	KLASSEN, Gerhard D.
		Art Unit	2661
		Examiner Name	--
Sheet 1 of 1	Attorney Docket Number	16813-1US	

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	1	US- 5,617,526 A	04-01-1997	Oran et al.	
	2	US- 5,333,256 A	07-26-1994	Green et al.	
	3	US- 6,424,354 B1	07-23-2002	Matheny et al.	
	4	US- 6,385,459 B1	05-07-2002	Lawrence et al.	
	5	US- 5,634,102 A	05-27-1997	Capps	
	6	US-			
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		US-			
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FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	† <sup>4</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
	1	EP 0 943 987 A1	09-22-1999	Oce-Technologies B.V.		

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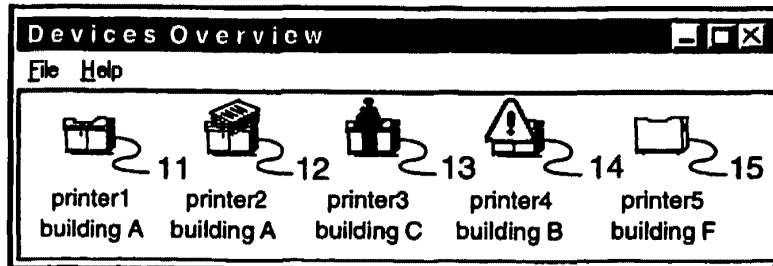
(54) **Presentation of printer status in an information-processing system**

(57) In an information-processing system comprising workstations and at least one printer interconnected by a digital network, the current state of the printer or printers is presented on the screen of a workstation in the form of an icon.

job sent from a workstation is executed directly, and in a command-controlled mode in which a reproduction process, including a copying process, must be started from an operator control panel on the printer.

The printers are of a type which can carry out printing processes in an autonomous mode, in which a print

When the printer is "occupied" in the autonomous mode, a different icon is displayed from that displayed when the printer is "occupied" in the command-controlled mode.



**Fig. 3**

10

EP 0 943 987 A1

## Description

[0001] The invention relates to an information-processing system comprising:

at least one workstation provided with a processor unit, a screen and operator control means such as a keyboard and mouse,

at least one printer provided with a control unit and an operator control panel, and

a digital network to which the workstations and the printers are connected,

wherein a workstation is provided with a program for communication with a printer for sending print jobs to said printer and calling up or receiving status information concerning said printer,

which program comprises means for displaying on the workstation screen in the form of a symbolic illustration or icon current status information concerning the said printer.

[0002] A system of this kind is known from EP-A 0 398 648. In this known system the status of application programs, including a printer application, is displayed by means of icons on the screen at the workstations. When the status of an application changes, the icon of that application is dynamically adjusted in this system, by the addition of a different icon.

[0003] In Applicants' patent application EP-A 0 814 424, a digital copying machine is described comprising a scanner and a printer section, wherein the printer section can also be used as a network printer. This machine is adapted to receive and process two types of print jobs from a workstation coupled to the network, namely automatic print jobs which, after receipt, must be printed directly and without the intervention of a printer operator, and interactive print jobs (referred to as "deferred print jobs" in the said patent application), which are only received by the printer and stored in a memory, but are not printed, unless an operator selects on the printer operator control panel a print job of this kind and gives a print command. This machine thus operates in one of two modes, namely an autonomous mode in which at its own initiative it executes an (automatic) print job, and a command-controlled mode, in which it executes a reproduction job, a copying process or an interactive print process.

[0004] The use of digital copying machines as network printers gives a new dimension to procedure with these machines. On the one hand, a user who sends his print job to the machine for automatic printing thereby is interested in the question whether the machine is ready to process his print job immediately, and on the other hand the user can immediately see at his workplace (at his workstation) whether the machine is available for a command-controlled job (e.g. a copying job).

[0005] When a user intends to make a copy or an interactive print, it is not only desirable that he should see

on his workstation screen whether the machine of his choice is free or occupied in a copying or printing process, but also to differentiate in detail the information concerning the "occupied" state. An automatic print job can of course be interrupted without obstruction to someone else. The senders of such print jobs usually do not come to fetch their prints immediately, and if these prints are ready somewhat later, because another user has interrupted the printing process for some time, this will usually be readily accepted.

[0006] Conditions are different if the machine is occupied in the command-controlled mode, namely because an operator is busy at the machine. In that case it is much less acceptable to interrupt the current process because the said operator is waiting for the prints from that process.

[0007] The invention now meets the demand for extra information, by the fact that the printer control unit is adapted to execute print jobs in either an autonomous mode or a command-controlled mode, and the program displays different icons for those cases in which the printer is active in the said autonomous mode and those in which the printer is active in the said command-controlled mode.

[0008] A different icon for different "occupied" states is a new solution to a new problem, considered in the light of the prior art.

[0009] Preferably, an icon has a form which is self-evident, and hence according to one embodiment of the invention the icon for the command-controlled "occupied" mode is preferably in a form which contains a human figure.

[0010] The invention will now be explained by reference to the following exemplified embodiment and the accompanying drawings wherein:

[0011] Fig. 1 shows an information-processing system in which the invention is situated.

[0012] Fig. 2 is a diagrammatic overview of the software according to the invention.

[0013] Figs. 3 to 13 show information windows displayed by the software according to the invention on the workstation screen.

[0014] Fig. 1 shows a system of workstations WS and printers PR connected by a local network N. The workstations are, for example, PC's and are in each case equipped with a processing unit, a screen, a keyboard and a mouse. The printers are digital copying machines, each comprising a scanner, a printer, an operator control unit and a connection unit (Digital Access Controller or DAC) for connection to the network and processing print jobs sent from the workstations. In addition it is possible to use machines which only have a printer function but also have a control system adapted to the functionality described hereinafter. All these machines, copying machines and printers, are hereinafter referred to as "printer". Users wishing to have a specific data file printed from their workstation, can for the purpose choose from a number of, or even all, the printers of the system.



[0015] For the purpose of communication with the printers and the presentation of information relating thereto to the users, there is operative in each connected workstation a program which is hereinafter referred to as "desktop software". This program is personalised, i.e., it works on the instructions of just one user who on starting up has identified himself and input his authorisation code.

[0016] The desktop software, hereinafter also referred to as "desktop" for short, is built up from a number of sub-programs diagrammatically illustrated in block 100 in Fig. 2. The core of the desktop software is formed by a sub-program indicated by "virtual printer", which communicates with the connected printers and updates the properties and status of each of these insofar as this is of interest to the workstation user. As will be explained in the following description, a user can choose how much information he wants to have presented concerning the state of connected printers and the printing files to be processed thereon and at what time. The exchange of data concerning these matters between the desktop software and the printers is limited to what is essential for the user's requirements. This prevents the network from being loaded more than is necessary and in addition the processing capacity of the workstation is not loaded more than necessary, since only the relevant information is present in the workstation and has to be processed.

[0017] The "virtual printer" program is provided with an operator control program, hereinafter referred to as "user interface" (UI), which controls the communication between the user and the desktop software in a manner understandable to the user, in the form of key strokes on the keyboard and windows on the screen, in which windows information is presented and in which the user can select and control the operation of elements by means of mouse movements. The desktop software is also provided with a communication program COM for controlling data transport from and to the printers via the network.

[0018] Block 200 in Fig. 2 gives a diagrammatic illustration of the communication software in the DACs of the printers. This is formed particularly by an "information server" IS, which is intended to receive from and send to workstations digital information such as status information concerning the printer itself and the print jobs that the printer is processing. The information server updates data concerning the information required by each desktop and transmits only that information which is really required, and at the time at which it is required. The information server is also provided with a communication program COM for controlling data transport from and to the desktops via the network.

[0019] Files of digital data which are transmitted to a printer via the network for printing by the printer are either of a first or a second type. Files of the first type, hereinafter referred to as automatic print jobs, are required to be printed directly, i.e. without further action by

an operator at the printer, while files of the second type, hereinafter referred to as interactive print jobs, must only be stored in the printer memory and must not be printed until an operator at the printer explicitly so requests there by selection with the aid of the operator control means. An attribute added to the file shows the type of file involved.

[0020] Processing of a data file of the first type is referred to in this description as automatic printing (AP).

[0021] Processing of a data file of the second type is hereinafter referred to as interactive printing (IP). The procedure with this is as follows.

[0022] A data file for printing by interactive printing and transmitted by a workstation via the network is received by the DAC. This extracts from the file a number of predetermined identification data, such as the name of the owner and the name of the file itself. The file is then stored unchanged on a storage unit, e.g. a hard disk, in the printer, whereafter the machine passes to the stand-by state in respect of this job.

[0023] The DAC manages an administration system containing the identification data of all the data files for printing which are stored. If a new file is supplied via the network, the DAC adds the identification data thereof in the name of the owner/sender to the administration system.

[0024] The disk together with the said administration system of the DAC form, as it were, a set of "logic storage spaces" for data files, each logic storage space being allocated to one user. Thus in actual fact storage in a user's logic storage space means that the file is stored on the disk and registered in the administration system in the name of that user. A logic storage space can be protected by a code specific to the owner/user, i.e. in practice an operator can obtain information over the files stored in a specific logic storage space only after he has input this code via the operator control means of the printer.

[0025] If an operator now wishes to have a specific interactive print file printed, then he must select that file by means of the printer operator control panel and give a print command by actuating a start key. In response thereto the data file is brought up from the disk and converted to printable data, which are processed by the printer to form a print. An interactive print file can be protected by the sender by means of a code. This code is in the form of an attribute to the print file. If a user wishes to print this file interactively, he must key in the security code at the operator control panel before the file is printed.

[0026] When a data file has been interactively printed, it remains in principle stored on the disk and registered in the administration system until it is removed by the user himself or by the printer manager.

[0027] The printer manager can bring the machine into a mode in which automatic print jobs are not accepted. In that case, incoming automatic print jobs are converted by the printer into interactive print jobs and stored

on the disk.

[0028] As already stated, at least a number of the printers in this system are in fact digital copying machines, which can also make a copy of an original document by scanning it and printing the digital image data generated thereby.

[0029] There are therefore jobs which are started by a user at the machine itself (copy jobs and interactive print jobs) and jobs which are fed from a distance, e.g. from a workstation (PC) (an automatic print job). In the former case, the printer operates in a command-controlled mode in which the machine starts a reproduction process in response to a start command from the operator control panel, while in the latter case it operates in an autonomous mode in which the machine starts a reproduction process on its own initiative.

[0030] A user who has gone to the machine in order to start a job there by means of the keys finds it very frustrating if a remote-started automatic print job begins just before he wants to start his job. He then has to wait until the remote-started job is finished, or he must at least interrupt that job by means of an "interrupt" mechanism, before he can make his copy. This frequently occurs in practice, particularly at a machine which is frequently used, and results in annoyance and delay.

[0031] In order to protect the position of the user at the machine as much as possible, the machine passes into the command-controlled mode in response to a physical interaction by an operator at the machine, and/or remains there for a predetermined first waiting period. During this waiting period, the machine cannot pass into the autonomous mode. This offers the user at the machine the opportunity of creating, by any interaction, e.g. by actuating a key or placing one or more documents in the machine feed tray, time for himself in order to start his job unhurriedly.

[0032] In addition, on completion of the execution of a job in the command-controlled mode, the machine remains in the command-controlled mode for a predetermined second waiting time.

[0033] Thus if the user wishes to process further copying or interactive print jobs, he will not be overtaken by an automatic print job. Also during the said second waiting period, the machine cannot pass to the autonomous mode. The second waiting period can be equal to the first. A practical value for waiting periods is, for example, 30 seconds to 2 minutes.

[0034] The above-mentioned desktop software will now be described further.

[0035] The desktop software comprises the following modules:

- An overview of all available connected printers with an indication of their status (hereinafter referred to as: Devices Overview)
- An overview of current print jobs with the possibility of intervening in the settings for each job (hereinafter referred to as: Job Control)

- Information provision concerning the progress of current print jobs (hereinafter referred to as: Job Monitoring).

5 [0036] The mode information presented by the three modules of the desktop software is dynamic, i.e. it is adapted directly as soon as there is any change in the presented mode.

10 [0037] It should again be noted that the desktop software is personalised and that the information provision and control possibilities are therefore directed towards the wishes of one specific user.

15 [0038] The three program modules referred to can be started from a general start menu which appears when the desktop software is selected on the workstation screen, and will now be described in sequence.

[0039] Fig. 3 shows a window 10 which is displayed on the workstation screen after the user has selected the option "Devices Overview" in the desktop software.

20 This window displays for each printer a symbol indicating the status of that printer. Examples of this are shown in Fig. 3. In addition, each symbol has a short description of the printer so that it is clear which printer is involved.

25 [0040] A first symbol 11 is a stylised illustration of the printer. This symbol indicates that the printer in question is available for print jobs and is at the moment idle. A second symbol 12 shows the printer with a stack of papers over it and indicates that this machine is occupied with an automatic print job in the autonomous mode.

30 Symbol 13 shows the printer with a person in front of it, to indicate that the machine is in the command-controlled mode and hence either occupied with a copy job or an interactive print job or is in the above-described first or second waiting period, in which no automatic print jobs can start. Symbol 14 is an illustration of the printer with, superimposed thereon, a notice board indicating that this printer is in a malfunction state. Symbol 15 is an undetailed illustration of the printer to indicate that this printer is connected but at the present time is not available for copy jobs or print jobs.

35 [0041] From these symbols a user can determine which printer he should send his print job to, and also, when he wishes to carry out a copying or interactive print job, whether the chosen machine is free. Particularly convenient is the differentiated indication of the occupied state, i.e. occupation in the autonomous mode and occupation in the command-controlled mode, because an automatic print job can without difficulty be stopped during operation by a user at the machine, in order to carry out a copy job or interactive print job in an "interrupt" mode, but passing another user at the machine will always require more convincing reasons.

40 [0042] The user can select one of the symbols, and hence one of the printers, and then call up one of the following functions either with a menu in the top bar of the window or with a pop-up menu or the right-hand mouse button:

- Displaying the waiting print jobs for the printer concerned; in this function automatic and interactive print jobs are displayed separately and they can also be manipulated. This function forms part of the "Job Control" program module and will be described in detail there. This function can also be called up with a double mouse click on the printer symbol.
- Displaying the properties and status of the printer concerned.
- Calling up a monitor function which during the work gives information on the display screen concerning the status of the printer concerned.
- Defining the printer concerned as the default printer.

[0043] In the above-mentioned function in which the properties and status of the printer are displayed, a window with this information appears on the screen, the information being distributed over three tab cards which can be made visible by selection of their tab, as shown in Figs. 4A, B and C. The stock of printing paper in the printer trays is displayed on a first tab card, the current state of operation of the printer is described on the second tab card and information as to the installed functionality is shown on the third tab card.

[0044] In response to selection of the above-mentioned monitor function, the workstation screen shows a window in which the user can set his preferences for the form of presentation of the printer status data (see Fig. 5). There are two main forms of presentation, namely with a permanent icon on the screen ("by icon") and with messages which appear on the screen at the time that a change of printer status occurs ("by alerts").

[0045] When monitoring with icons is set, the icon displays a symbolic illustration of the status just as shown in Fig. 3. An example of such an icon is given in Fig. 6A. A user can also simultaneously have the status of different printers maintained. In that case, the screen shows an icon for each monitored printer as shown in Fig. 6B. By a double click of the mouse on an icon the function of displaying the waiting print jobs for the printer concerned is called up. In this connection we would again refer to the description of the "Job Control" program module.

[0046] When monitoring is by means of messages, the user can indicate the changes of state for which he wants to receive a message, in order thus to avoid unnecessary reports. An example of a message of this kind is displayed in Fig. 7.

[0047] Fig. 8 shows the relevant layout of the workstation screen after the user has selected the "Job Control" option in the desktop software to maintain an overview of current print jobs.

[0048] Here a number of windows 20A, B and C are displayed, each applicable to a printer at which a print job of the user is present at that time. Thus there are as many windows displayed as there are printers at which the user's print jobs are present at that time. If this function was called up from the "Device Overview" module,

then only the window for the printer selected there would be displayed.

[0049] A window 20 contains a space 21 for automatic print jobs, a space 22 for interactive print jobs of the user, and a space 23 for specifying the active print job. There are also a number of "keys" which can be operated by means of the mouse.

[0050] Space 21 contains the queue of automatic print jobs of the user, with their status (number in the queue), name, and other data to be selected by the user during set-up. By clicking on a switchbox on the left beneath the space 21 the user can also have displayed all the waiting automatic print jobs, i.e. including those of other users. In that case his own jobs are reproduced in a manner which is distinguishable from the others, for example in colour. If the Job Control module is called up from the "Devices Overview" module, for a specific printer, the presentation of all the waiting automatic print jobs, i.e. including those of other users, is the default setting.

[0051] Space 22 contains an overview of waiting interactive print jobs of the user, here reproduced with icons with a name, which corresponds to the character of the jobs, which are not in a queue but do not become operative until the user starts them on the operator control panel. To obtain more information concerning these jobs, the user can also have them presented in a detailed list.

[0052] Space 23 displays the data of the print job which is active at that time, or, if there is no job active, the state of the printer ("idle", "error"). The space contains the following data: type of job (copying job, automatic print job, interactive print job), number of prints, name of the owner of the job, and the name of the job. Next to the space 23 is a key 24, by means of which the active job can be discontinued ("abort").

[0053] By means of the key 25, an interactive print job selected in the space 22 can be converted to an automatic print job and be added to the queue in space 21, while the key 26 can convert an automatic print job selected in space 21 into an interactive job and move it to space 22.

[0054] By means of key 27, the print settings can be displayed for a print job selected in either of the spaces 21 or 22. The same effect is achieved by double clicking of the mouse on the job name. In response to this, a window is opened on the screen of the workstation, displaying all the settings. The settings can also be changed in this window.

[0055] Finally, a print job selected in either of the spaces 21 or 22 can be removed by means of key 28.

[0056] The above functions can also be called up by selecting a job and choosing from the "document" menu in the menu bar above the window 20 or by selecting in a pop-menu which appears when the right-hand mouse button is clicked on a job name.

[0057] The functions explained with reference to the keys 24 - 28 can be used by the user only for his own

print jobs.

[0058] The "View" menu in the menu bar above the window 20 offers the following options:

- Selection of the form of presentation of automatic print jobs (choice of which information is displayed)
- Selection of the form of presentation of interactive print jobs (as icons or in a list and, if a list is chosen, what information is displayed)
- Display of all print jobs of the user (over all the printers), with the printer on which the job is present, plus this information concerning the print jobs that have already been finished.

[0059] This latter function will now be explained with reference to Fig. 9.

[0060] When this function is selected, the screen at the workstation displays the window 30. This window 30 contains a space 31 in which there is displayed a list of all the print jobs which have not yet been finished for the user concerned, on all the printers, with their status (waiting, busy, error) and the printer at which they are present. This list shows both automatic and interactive print jobs and their type. Double clicking of the mouse on the name of a print job in space 31 opens the Job Control window (Fig. 8) of the printer where the job is present, so that the user can see the status of the job in the queue (if it is an automatic print job), can manipulate the job, and can inspect and/or change the print settings.

[0061] The window 30 also contains a space 32 displaying a list of all the finished print jobs of the user concerned, on all the printers, with the printer which processed them. A key 33 is provided beneath the space 32 to enable the user to remove from the list a print job after he has selected this by clicking with the mouse.

[0062] If a list is too long in space 31 or 32 to fit in that space, a scroll bar appears by means of which the jobs not fitting in the window can still be reached.

[0063] The list of finished print jobs in space 32 can also give a status indication although this is not shown here. In the case of a printer with more than one delivery tray, the printer machine control system knows the delivery tray in which the prints have been deposited and this information can be displayed in the list. The printer can also be provided with sensors to determine whether there are prints in the delivery trays. In that case, the machine control system can also note that a delivered stack of prints is taken from the tray. This information can also be displayed in the list in space 32. The status information can have the form of: "present in delivery tray X", or "removed".

[0064] By means of this function a user can always find out where his print jobs are in the queue or where his prints are situated, this being extremely convenient particularly in an environment in which a number of printers are used.

[0065] The monitor function can also operate for just a specified sub-set of all the printers in the system. This

can be set when the system is configured, or by means of a set-up function of the program.

[0066] The "monitor" menu in the menu bar above the Job Control window 20 offers the opportunity of activating a monitor function for the print jobs of the user concerned on the printer concerned. This function can also be called up from the start menu of the desktop software and will be described hereinafter.

[0067] The monitor function is intended to keep the user informed as to the status of his automatic print jobs. It can be operative for all the current jobs or for some of the jobs, as selected by the user.

[0068] The monitor function has three modes:

- A first mode ("active"): there is still at least one job of the set which has not been completed; also included is the number of jobs that have not yet been finished.
- A second mode ("passive"): all the jobs of the set have been finished or the set is empty.
- A third mode ("error"): one of the jobs has caused an error.

[0069] In response to the selection of the monitor function in the start menu of the desktop software, the workstation display screen displays a window in which the user can select one, more, or all the printers for the monitor function. This is shown in Fig. 10. After the user has clicked the "OK" key with the mouse, the workstation display screen displays a window in which the user can set his preferences for the form of presentation of the status of his personal print jobs (see Fig. 11). There are two main forms of the presentation, namely by means of a permanent icon on the screen ("by icon") or by means of messages which appear on the screen when there is any change in that status ("by alerts"). In the latter case the user can indicate the changes of status for which he wants to receive a message in order thus to avoid unnecessary reports.

[0070] The user inputs his preferences and presses the "OK" key, whereafter the function is activated. An icon now appears on the screen if the icon mode was selected.

[0071] When Job Monitoring is activated from Job Control, the selection window of Fig. 10 is skipped (the printer of the Job Control window is automatically selected), but the window of Fig. 11 is immediately displayed.

[0072] Fig. 12 shows monitor icons. In addition to the name of the printer for which it is active, an icon contains a symbol showing the status of a set of print jobs of the user on that printer. In this example, the following symbols are displayed for the above-mentioned three states:

For the first state ("active"): an illustration of a document with a pen;

For the second state ("passive"): an illustration of a

document;

For the third state ("error"): a notice board in front of a document.

[0073] The said set of print jobs monitored by the monitor function can be the complete set of jobs on the printer concerned, but it can alternatively be a sub-set. This sub-set can only be selected in the Job Control window 20, space 21, by clicking the required print jobs with the mouse, followed by clicking the monitor menu in the menu bar. When Job Monitoring is called up from the start menu of the desktop software, the set always contains all the jobs. The monitor function is dynamic: print jobs can be added to a monitored set.

[0074] In response to a double click of the mouse on a monitoring icon, the Job Control window of the printer concerned is opened, so that the user can inspect the complete status of his jobs.

[0075] A plurality of icons can also be displayed simultaneously on the screen, so that the user can inspect the status of different sets or printers simultaneously.

[0076] If the "by alerts" mode is selected, message windows appear only if there is a user-selected change of status of a print job from the set. An example of such a window is shown in Fig. 13.

[0077] Although the invention has been described with reference to the above exemplified embodiment, it will be clear to the skilled man that other embodiments are possible within the text of the claims. They are considered to come within the scope of protection of this patent.

#### Claims

##### 1. An information-processing system comprising

at least one workstation provided with a processor unit, a screen and operator control means such as a keyboard and mouse,  
at least one printer provided with a control unit and an operator control panel, and  
a digital network to which the workstations and the printers are connected,  
wherein a workstation is provided with a program for communication with a printer for sending print jobs to said printer and calling up or receiving status information concerning said printer,  
which program comprises means for displaying on the workstation screen in the form of a symbolic illustration or icon current status information concerning the said printer,

characterised in that

the control unit of the printer is adapted to execute print jobs in either an autonomous mode

or a command-controlled mode,  
the control unit in the autonomous mode starting the execution of a print order on its own initiative while in the command-controlled mode it starts the execution of a reproduction process, including a print order, in response to a start command from the operator control panel of the printer,  
and in that the program displays different icons for the cases in which the printer is active in the said autonomous mode and in which the printer is active in the said command-controlled mode.

2. A system according to claim 1, wherein a reproduction process in the command-controlled mode is formed by a copying process, in which an original document is scanned by a scanner present in the printer and digital image data are generated, and a print is made using the said digital image data.
3. A system according to claim 1 or 2, wherein a reproduction process in the command-controlled mode is formed by an interactive printing process, in which a print file which has been sent via the network and stored in a storage unit in the printer is selected by an operator using the operator control panel and is printed in response to a print command following upon the selection.
4. A system according to claim 1, wherein the icon for the command-controlled mode contains a human figure.

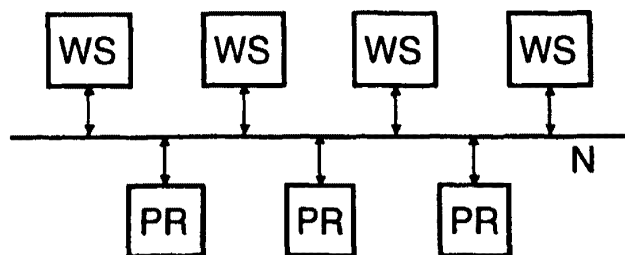


FIG. 1

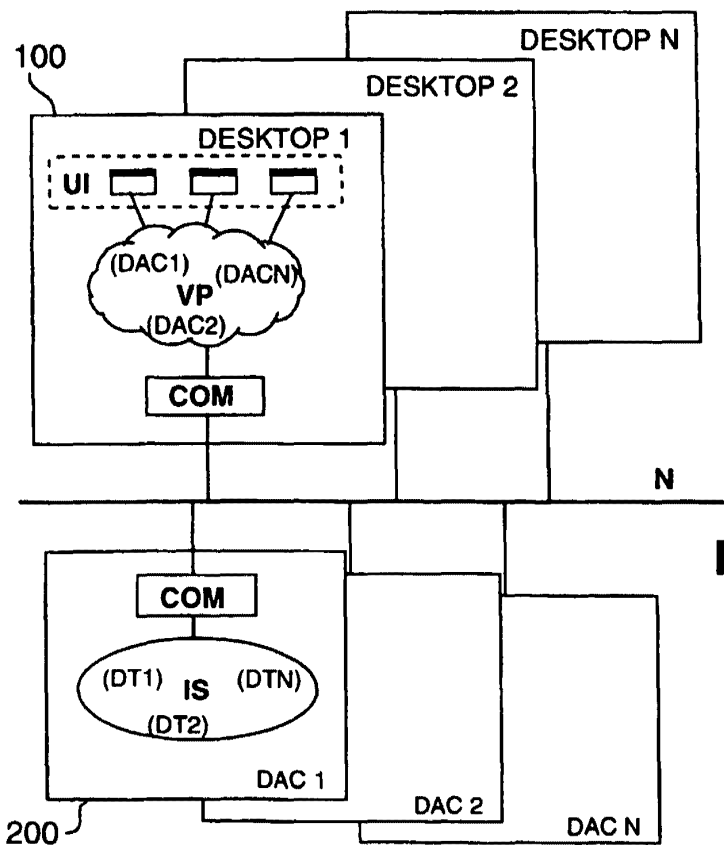
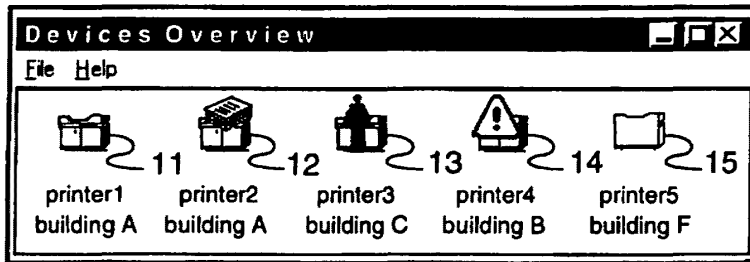
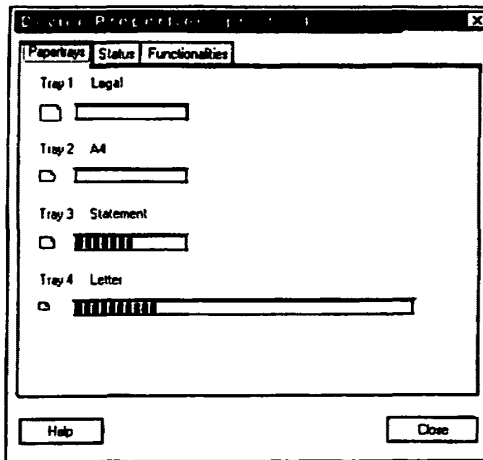


FIG. 2



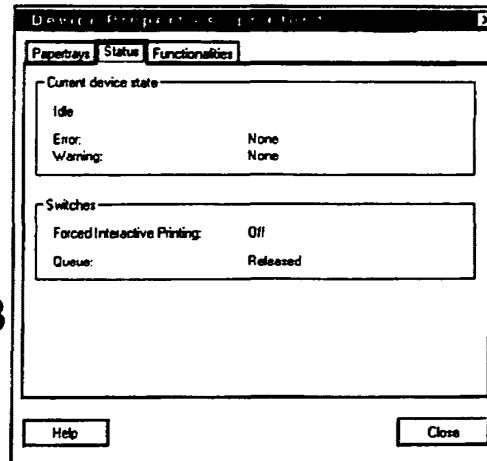
**Fig. 3**

10



**FIG. 4A**

**FIG. 4B**



EP 0 943 987 A1

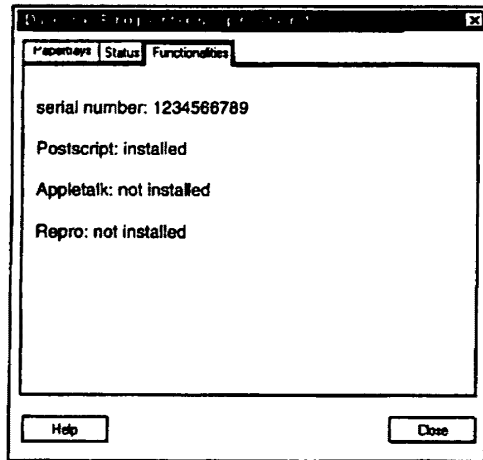


Fig. 4C

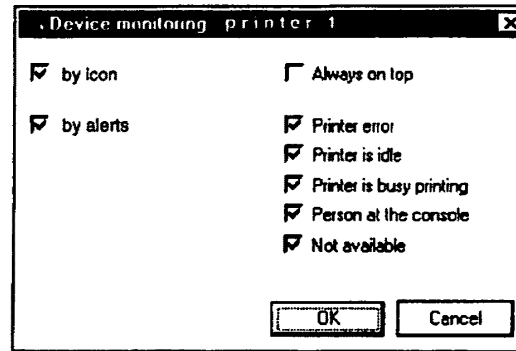


Fig. 5



Fig. 6A

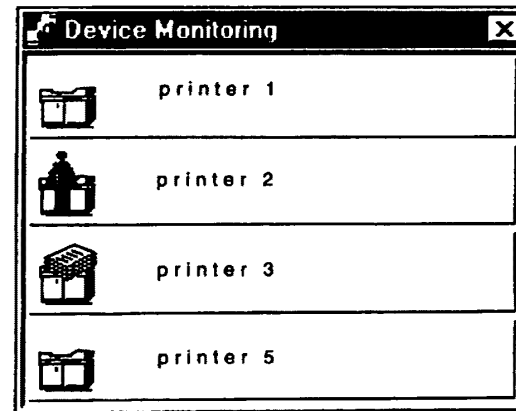


Fig. 6B



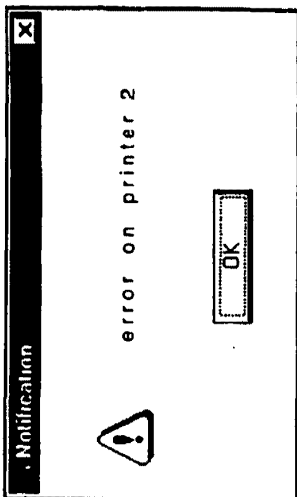
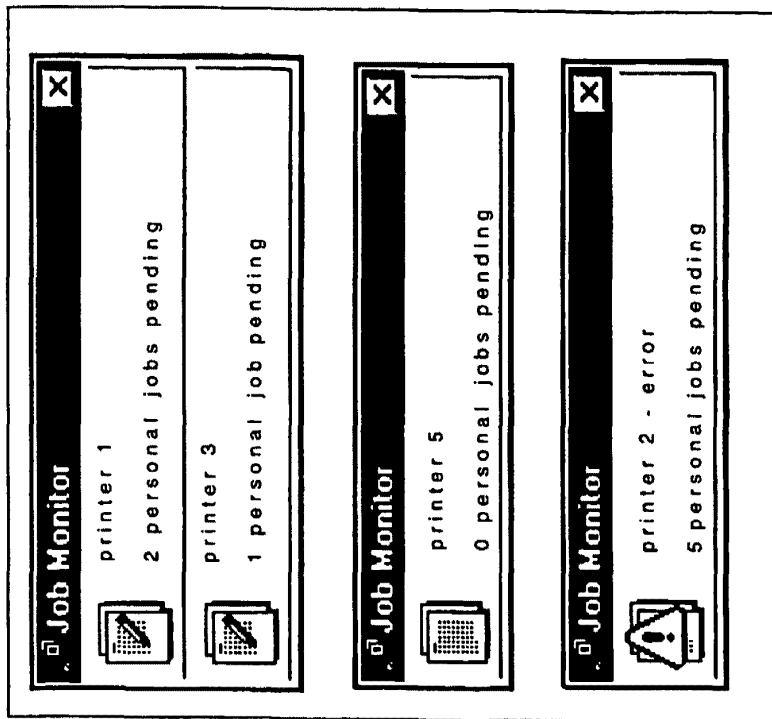


Fig. 7

Fig. 12

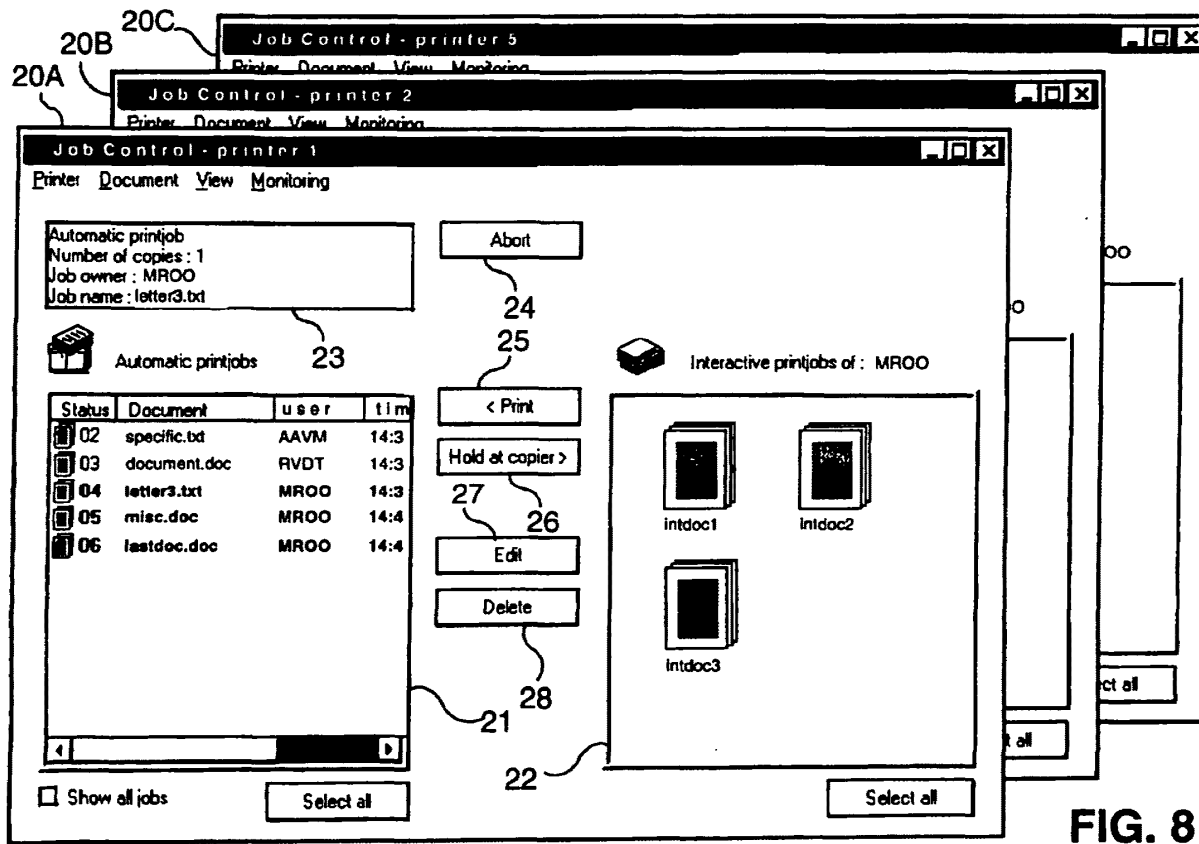


FIG. 8

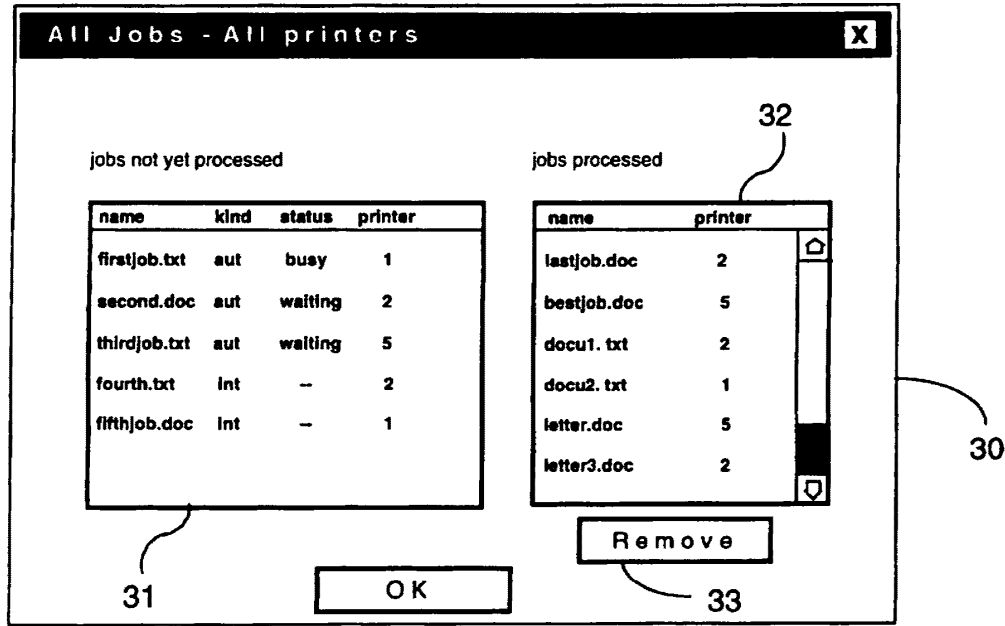


Fig. 9

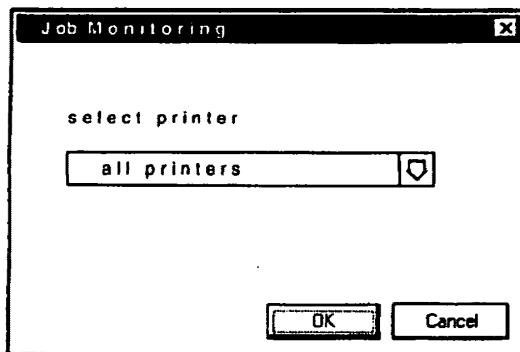


Fig. 10

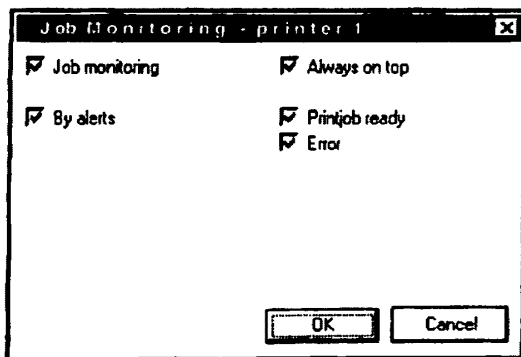


Fig. 11

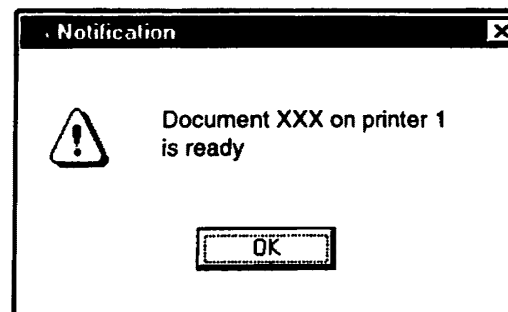


Fig. 13

14

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European Patent Office

EUROPEAN SEARCH REPORT

Application Number  
EP 99 20 0801

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	US 5 727 135 A (WELLMAN JOHN NEIL ET AL) 10 March 1998 * figures 1,2,8,9 * * column 5, line 47 - column 10, line 54 * * column 22, line 52 - column 23, line 67 * -----	1,3	G06F3/12
A	EP 0 750 251 A (CANON KK) 27 December 1996 * figures 1,2 * * column 5, line 55 - column 8, line 7 * -----	1,3	
A	EP 0 562 995 A (IBM) 29 September 1993 * figures 1-4 * * column 6, line 40 - column 7, line 14 * -----	1,4	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			G06F
Place of search	Date of completion of the search	Examiner	
THE HAGUE	5 July 1999	Weiss, P	
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

EPO FORM 1503 (03.02.1994/C01)

EP 0 943 987 A1

ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.

EP 99 20 0801

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

05-07-1999

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5727135 A	10-03-1998	NONE	
EP 0750251 A	27-12-1996	JP 9006550 A JP 9006555 A CN 1147177 A	10-01-1997 10-01-1997 09-04-1997
EP 0562995 A	29-09-1993	US 5727174 A JP 2539152 B JP 6168093 A	10-03-1998 02-10-1996 14-06-1994

EP 0 943 987 A1

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

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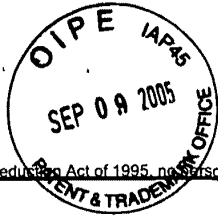
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<b>TRANSMITTAL FORM</b>  <small>(to be used for all correspondence after initial filing)</small>	Application Number	10/784,781
	Filing Date	February 24, 2004
	First Named Inventor	KLASSEN et al.
	Art Unit	2661
	Examiner Name	
Total Number of Pages in This Submission	Attorney Docket Number	16813-1US

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
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<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation	<input type="checkbox"/> Status Letter
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<input type="checkbox"/> Reply to Missing Parts/ Incomplete Application	<input type="checkbox"/> Landscape Table on CD	
<input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="text"/> Remarks	

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	Ogilvy Renault LLP		
Signature			
Printed name	Stephen Martin		
Date	September 9, 2005	Reg. No.	56,740

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Typed or printed name	Date

This collection of information is required by 37 CFR 1.5. 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 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, 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.

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PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

First Named Inventor: Gerhard D. Klassen      Attorney Docket No.: 16813-1US  
Serial No.: 10/784,781      Group Art Unit: 2661  
Filing Date: February 24, 2004      Examiner: Unknown  
For: **PREVIEWING A NEW EVENT ON A SMALL SCREEN DEVICE**

Mail Stop Assignment Recordation Services  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**CORRECTION OF DOMESTIC PRIORITY INFORMATION**

Sir:

Applicant advises that the Domestic Priority Number should be "No. 60/525,958". A Supplemental Application Data Sheet is herewith submitted to effect the change.

It is not believed that a fee is required in this instance, however, should a fee be required, the Commissioner is authorized to charge such fee to Deposit Account No. 195113.

Applicant awaits issuance of the Notice bearing the correct Domestic Priority Number.

Respectfully submitted,  
OGILVY RENAULT LLP

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200 Bay Street  
Toronto, Ontario M5J 2Z4

Date: September 9, 2005



**SUPPLEMENTAL APPLICATION DATA SHEET**

**APPLICATION INFORMATION**

Application Number:: 10/784,781  
Filing Date:: February 24, 2004  
Application Type:: Regular  
Subject Matter:: Utility  
Suggested Classification::  
Suggested Group Art Unit::  
CD-ROM or CD-R?:: None  
Sequence submission?:: None  
Title:: PREVIEWING A NEW EVENT ON A SMALL  
SCREEN DEVICE  
Attorney Docket Number:: 16813-1US  
Request for Early Publication?:: No  
Request for Non-Publication?:: No  
Suggested Drawing Figure:: 6  
Total Drawing Sheets:: 9  
Small Entity?:: No  
Petition included?:: No  
Secrecy Order in Parent Appl.?:: No

**APPLICANT INFORMATION**

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City of mailing address:: Kitchener  
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Postal or Zip Code of mailing address:: N2K 4J2

**CORRESPONDENCE INFORMATION**

Correspondence Customer Number:: 020988

**REPRESENTATIVE INFORMATION**

Representative Customer Number:: 020988

**ASSIGNEE INFORMATION**

Assignee name:: Research In Motion Limited  
Street of mailing address:: 295 Phillip Street  
City of mailing address:: Waterloo  
State or Province of mailing address:: Ontario  
Country of Residence:: Canada  
Postal or Zip Code of mailing address:: N2L 3W8

**DOMESTIC PRIORITY INFORMATION**

Application::	Continuity Type::	Parent Application::	Parent Filing Date::
This Application	An application claiming the benefit under 35 USC 119(e)	60/525,958	December 1, 2003

	Type	Ref #	Hits	Search Text
1	BRS	S1	550	(updat\$3 or chang\$3 or modif\$4) WITH (icon or graphic or symbol or picture) same (event or new event) and (start\$1 or initiat\$3 or invok\$3) with application
2	BRS	S3	5	(US-20060256130-\$ or US-20050138183-\$ or US-20050091609-\$ or US-20050071736-\$ or US-20040229200-\$).did.
3	BRS	S5	18	S2 and (new message or new email)
4	BRS	S2	383	S1 and (@ad<"20040224")
5	BRS	S6	2	(US-20020194379-\$ or US-20020160817-\$).did.
6	BRS	S4	7	S2 and event detect\$3
7	BRS	S10	26	(yahoo).as. and (@ad<"20031201")
8	BRS	S12	11	S10 and count\$3
9	BRS	S9	190	(yahoo).as.
10	BRS	S8	2	yahoo messenger and (@ad<"20031201") and (yahoo).as.
11	BRS	S7	85	yahoo messenger and (@ad<"20031201")
12	BRS	S11	6	S10 and email
13	BRS	S16	7	msn messenger and (microsoft).as. and (@ad<"20031201")
14	BRS	S15	101	msn messenger and (@ad<"20031201")
15	BRS	S13	3684	instant messag\$3 and (@ad<"20031201")
16	BRS	S14	7	email count and (@ad<"20031201")
17	BRS	S17	0	S16 and new message
18	BRS	S18	7	S16 and new
19	BRS	S19	5482	new message\$1 or new email message\$1 and (@ad<"20031201")

	DBs	Time Stamp	Comments	Error Definition
1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2007/02/28 12:18		
2	US-PGPUB	2007/02/28 12:48		
3	US-PGPUB	2007/02/28 16:55		
4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	2007/02/28 12:19		
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	Type	Ref #	Hits	Search Text
20	BRS	S20	162	new email message\$1 and (@ad<"20031201")
21	BRS	S21	40	new email message\$1 and count\$2 and (@ad<"20031201")
22	BRS	S22	0	new email message\$1 with count\$2 and (@ad<"20031201")
23	BRS	S23	2	new email message\$1 same count\$2 and (@ad<"20031201")
24	BRS	S24	96	(new message\$1 or new email message\$1) same count\$2 and (@ad<"20031201")
25	BRS	S25	1	(US-20050248437-\$):did.



	<b>DBs</b>	<b>Time Stamp</b>	<b>Comments</b>	<b>Error Definition</b>
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/784,781	02/24/2004	Gerhard D. Klassen	16813-1US	2200
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20988 7590 03/21/2007  
OGILVY RENAULT LLP  
1981 MCGILL COLLEGE AVENUE  
SUITE 1600  
MONTREAL, QC H3A2Y3  
CANADA

EXAMINER
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HEFFINGTON, JOHN M

ART UNIT	PAPER NUMBER
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2109

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS	03/21/2007	PAPER
----------	------------	-------

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

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/784,781	<b>Applicant(s)</b> KLASSEN ET AL.	
	<b>Examiner</b> John M. Heffington	<b>Art Unit</b> 2109	

-- 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 24 February 2004.
- 2a)  This action is **FINAL**.                      2b)  This action is non-final.
- 3)  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**

- 4)  Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1-20 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on 24 February 2004 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).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**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)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date See Continuation Sheet.
- 4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5)  Notice of Informal Patent Application
- 6)  Other: \_\_\_\_\_

Continuation of Attachment(s) 3. Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :24 February 2004, 26 October 2004.

### DETAILED ACTION

This action is in response to the original filing of February 24, 2004. Claims 1-20 are pending and have been considered below.

### *Specification*

#### Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
  - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject

Art Unit: 2109

matter of the claimed invention. This item may also be titled "Technical Field."

- (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation.

There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).

- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (l) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

The specification discloses that the instant application claims benefit to a U.S. Provisional Patent Application. The application of the U.S. Provisional Patent Application is incorrectly listed as 60/525,959 and should be listed as 60/525,958.

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1,6-8,10 and 11 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for previewing new events on a screen, does not reasonably provide enablement for using a single definition for visually modifying an icon. The method in this claim consists of a single step: "visually modifying the one of said applications' icon", and thus is interpreted as a single means/single step claim under MPEP 2164.08(a).



"A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph. In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.). When claims depend on a recited property, a fact situation comparable to Hyatt is possible, where the claim covers every conceivable structure (means) for achieving the stated property (result) while the specification discloses at most only those known to the inventor."

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 7 recites the limitation "said act of displaying a preview" in claim 6. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-4,9-12,17-20 rejected under 35 U.S.C. 102(e) as being anticipated by Salmimaa (US 2002/0160817 A1).

Claim 1: Salmimaa discloses a method of a mobile terminal receiving messages (paragraph 0026) and modifying application icons in response to the messages (paragraph 0013).

Claim 2: Salmimaa discloses a method of an application launcher that launches an application associated with a selected icon in response to further user input (paragraph 0038).

Claim 3: Salmimaa discloses a method featuring an icon of a user more prominently when an email from that user is received, i.e. monitoring for new email messages (events) (paragraph 0045).

Claim 4: Salmimaa discloses a method modifying application icons in response to the messages (paragraph 0013), thereby determining which modification should be made to the icon.

Claim 9,17: Salmimaa discloses a method and a Graphical User Interface (GUI) for an application launcher that launches an application associated with a selected icon in response to further user input, for example, a web browser or a document (paragraph 0038).

Claim 10,11,18,19: Salmimaa discloses a method and a Graphical User Interface (GUI) for a mobile terminal that includes a microprocessor and a memory that communicates with one or more content providers via a wireless means (paragraph 0034).

Claim 12,20: Salmimaa discloses a GUI and a hand held wireless device for a mobile terminal that includes a microprocessor and a memory that communicates with one or more content providers via a receiving circuit, i.e. monitoring component (paragraph 0034) and modifying icons, i.e. a modifying component (paragraph 0013).

***Claim Rejections - 35 USC § 103***

2. 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 negated by the manner in which the invention was made.

3. Claims 5-8, 13-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Salmimaa (US 2002/0160817 A1) in view of Hellebust (US 2005/0248437 A1).

Claim 5: Salmimaa discloses a method modifying application icons in response to the messages (paragraph 0013) as in claim 4 above, thereby determining which modification should be made to the icon, but does not disclose keeping a count of the number of messages received for each icon. Hellebust discloses a method showing the number of messages received under each of the categories (paragraph 0017).

Therefore, it would have been obvious to one having ordinary skill in the art for Salmimaa to include a message count for each icon. One would have been motivated to include a message count for each icon to count the number of messages associated with each icon that have the same profile.

Claim 6,14: Salmimaa discloses a method of a mobile terminal receiving messages (paragraph 0026) and modifying application icons in response to the messages (paragraph 0013) as in claims 1 and 12 above, but does not disclose a method of displaying a preview of content of a new event. Hellebust discloses a method for the display of the wireless device to be updated to reflect that a new message has arrived by displaying the actual message (paragraph 0011). Therefore, it would have been obvious for to one having ordinary skill in the art for Salmimaa to include a view of the actual message for an icon when a new message arrives. One would have been motivated to display the actual message for an icon when a new message arrives in order to display the content of the message rather than just the modification of the icon.

Claim 7,15: Salmimaa discloses a method of a mobile terminal receiving messages (paragraph 0026) and modifying application icons in response to the messages (paragraph 0013) and Hellebust discloses a method for the display of the wireless device to be updated to reflect that a new message has arrived by displaying the actual message (paragraph 0011) as in claims 6 and 12 above. Salmimaa further discloses a

method of an application launcher that launches an application associated with a selected icon in response to further user input (paragraph 0038).

Claim 8: Salmimaa and Hellebust disclose a method for receiving messages (Salmimaa, paragraph 0026), modifying application icons in response to the messages (Hellebust, paragraph 0013) and an application launcher that launches an application associated with a selected icon in response to further user input (Salmimaa, paragraph 0038) as in claim 7 above, but do not disclose displaying a content preview in a dialog box. A dialog box is a very common way to display information separately from another window at the time of the invention. Therefore, it would have been obvious for Salmimaa and Hellebust to display a preview of content in a dialog box. One would have been motivated to display a preview of content in a dialog box in order to maximize display space by displaying separate information over other information, therefore adding a third dimension of display space.

Claim 13,16: Salmimaa discloses a GUI and a hand held wireless device for a mobile terminal that includes a microprocessor and a memory that communicates with one or more content providers via a receiving circuit, i.e. monitoring component (paragraph 0034) and modifying icons, i.e. a modifying component (paragraph 0013) as in claims 12 and 15 above, but does not disclose maintaining a count of items. Hellebust discloses a similar GUI and hand held device that keeps count of items (paragraph 0017). Therefore, it would have been obvious to one having ordinary skill in the art for

Salmimaa to include a message count for each icon. One would have been motivated to include a message count for each icon to count the number of messages associated with each icon that have the same profile.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Heffington whose telephone number is (571) 270-1696. The examiner can normally be reached on Mon - Fri (Alternate Fridays off) 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim Myhre can be reached on (571) 270-1065. 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.

JMH  
3/5/2007



James W. Myhre  
Supervisory Patent Examiner



Approved for use through 07/31/2006. OMB 0651-0031  
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Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE          STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>	<b>Complete if Known</b>	
	Application Number	10/784,781
	Filing Date	02/24/2004
	First Named Inventor	KLASSEN, Gerhard D.
	Art Unit	2804 2109
	Examiner Name	-
Sheet 1 of 1	Attorney Docket Number	16813-1US

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)	MM-DD-YYYY		
JH	1	US-5,617,526 A	04-01-1997	Oran et al.	
JH	2	US-5,333,256 A	07-26-1994	Green et al.	
JH	3	US-6,424,354 B1	07-23-2002	Matheny et al.	
JH	4	US-6,385,459 B1	05-07-2002	Lawrence et al.	
JH	5	US-5,634,102 A	05-27-1997	Capps	
	6	US-			
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FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>2</sup>
		Country Code <sup>3</sup> Number* Kind Code <sup>4</sup> (if known)	MM-DD-YYYY			
JH	1	EP 0 943 987 A1	09-22-1999	Oce-Technologies B.V.		

Examiner Signature	/John Heffington/	Date Considered	03/05/2007
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> 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.

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<b>Notice of References Cited</b>	Application/Control No. 10/784,781	Applicant(s)/Patent Under Reexamination KLASSEN ET AL.	
	Examiner John M. Heffington	Art Unit 2109	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification	
*	A	US-2002/0160817 A1	10-2002	Salmimaa et al.	455/566
*	B	US-2005/0248437 A1	11-2005	Hellebust et al.	340/007.51
	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)
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V	
W	
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\*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.



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Bib Data Sheet

CONFIRMATION NO. 2200


<b>SERIAL NUMBER</b> 10/784,781	<b>FILING OR 371(c) DATE</b> 02/24/2004 <b>RULE</b>	<b>CLASS</b> 715	<b>GROUP ART UNIT</b> 2109	<b>ATTORNEY DOCKET NO.</b> 16813-1US	
<b>APPLICANTS</b> Gerhard D. Klassen, Waterloo, CANADA; Craig A. Dunk, Guelph, CANADA; Christopher R. Wormald, Kitchener, CANADA;					
** CONTINUING DATA ***** This appln claims benefit of <del>60/525,059</del> 12/01/2003 <i>60/525,958 JMAH</i>					
** FOREIGN APPLICATIONS ***** <i>None</i>					
<b>IF REQUIRED, FOREIGN FILING LICENSE GRANTED</b> ** 05/15/2004					
Foreign Priority claimed <input type="checkbox"/> yes <input type="checkbox"/> no		<b>STATE OR COUNTRY</b> CANADA	<b>SHEETS DRAWING</b> 9	<b>TOTAL CLAIMS</b> 20	<b>INDEPENDENT CLAIMS</b> 3
35 USC 119 (a-d) conditions met <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance					
Verified and Acknowledged		Examiner's Signature	Initials		
<b>ADDRESS</b> 20988 AIR MAIL					
<b>TITLE</b> Previewing a new event on a small screen device					
<b>FILING FEE RECEIVED</b> 770	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees ( Filing ) <input type="checkbox"/> 1.17 Fees ( Processing Ext. of time ) <input type="checkbox"/> 1.18 Fees ( Issue ) <input type="checkbox"/> Other _____ <input type="checkbox"/> Credit		

<b>Index of Claims</b> 	<b>Application/Control No.</b> 10784781	<b>Applicant(s)/Patent Under Reexamination</b> KLASSEN ET AL.
	<b>Examiner</b> Heffington, John M	<b>Art Unit</b> 2109

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

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

CLAIM		DATE									
Final	Original	03/05/2007									
	1	✓									
	2	✓									
	3	✓									
	4	✓									
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	15	✓									
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	18	✓									
	19	✓									
	20	✓									

<b>Search Notes</b>  	<b>Application/Control No.</b>  10784781	<b>Applicant(s)/Patent Under Reexamination</b>  KLASSEN ET AL.
	<b>Examiner</b>  Heffington, John M	<b>Art Unit</b>  2109

<b>SEARCHED</b>			
<b>Class</b>	<b>Subclass</b>	<b>Date</b>	<b>Examiner</b>
715	700	3/1/2007	JMH

<b>SEARCH NOTES</b>		
<b>Search Notes</b>	<b>Date</b>	<b>Examiner</b>
EAST Search	3/1/2007	JMH

<b>INTERFERENCE SEARCH</b>			
<b>Class</b>	<b>Subclass</b>	<b>Date</b>	<b>Examiner</b>

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 10/784,781

Art Unit: 2109

Filed: 02/24/2004

Confirmation No.: 2200

Applicant: Gerhard D. Klassen et al.

Examiner: Heffington, John M.

Title: PREVIEWING A NEW EVENT ON A SMALL SCREEN DEVICE

Docket No.: 16813-IUS

Customer No.: 020988

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MS AMENDMENT

Commissioner of Patents

P.O. Box 1450

Alexandria, V.A. 22313-1450

Dear Sir/Madam:

RESPONSE TO OFFICE ACTION

This is in response to the Office Action of March 21, 2007. Please amend the application as follows:

Amendments to the Specification appear on page 2.

Amendments to the Claims appear on page 3.

Remarks/Arguments appear on page 7.

Excess claim fees in the amount of \$50 for an additional 1 claim (1 x \$50 = \$50) in connection with new claims 21 to 41 are included in our authorization of today's date. Please charge Deposit Account No. 195113 in the amount of \$50 to cover the excess claim fees. The Director is authorized to charge any deficiency or credit any overpayment to our Deposit Account No. 195113.

Amendments to the Specification

*Please replace all prior versions of Paragraph 0001 found on page 1 with the following:*

[0001] This application claims the benefit of U.S. Provisional Patent Application No. ~~60/525,959~~ 60/525,958 filed December 01, 2003.

Amendments to the Claims

*Please replace the existing listing of claims with the following:*

Claims 1-20 (Cancelled)

21. (New) A method for providing notifications of new events on a wireless device, the wireless device having a graphical user interface 'GUI' displayed on a display of the wireless device, the GUI having a main screen comprising an application portion for displaying icons for respective applications or functions for execution on the wireless device, the method comprising:

providing on the main screen and in the application portion a plurality of application icons each representing an application for managing respective events on the wireless device, the application icons occupying a major portion of the main screen; and

in response to a new event in respect of one of the applications, visually modifying the respective application icon in the application portion of the main screen to notify of the new event;

wherein the application icons are maintained on the main screen continuously.

22. (New) The method of claim 21 comprising invoking the one application in the application portion in response to the visually modified icon.

23. (New) The method of claim 21 comprising monitoring the one application in the application portion to determine an occurrence of the new event.

24. (New) The method of claim 21 further comprising:

determining a visual modification for the icon of the one application icon in the application portion in response to the new event; and

using said visual modification when visually modifying.



25. (New) The method of claim 24 wherein said step of determining a visual modification comprises maintaining a count of new events for the one application in the application portion.

26. (New) The method of claim 21 wherein said visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of the new event.

27. (New) The method of claim 26 wherein said displaying a preview is responsive to a user action.

28. (New) The method of claim 27 wherein said displaying a preview of a content comprises displaying a dialog box over a portion of the main screen.

29. (New) The method of claim 21 further comprising: in response to an activation of the one application in the application portion having its icon visually modified to notify of the new event, automatically navigating through the one application to the new event.

30. (New) The method of claim 21 wherein said wireless device comprises at least one of a data communication device and a voice communication device; wherein at least some of said plurality of applications manage communications capabilities associated with the wireless device and wherein said events of said at least some of said plurality of applications comprise communication events.

31. (New) The method of claim 21 further comprising, in response to a plurality of new events, visually modifying the icon of the one application in the application portion to notify of the plurality of new events.

32. (New) The method of claim 31 wherein said visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of each of the plurality of new events.

33. (New) A graphical user interface 'GUI' for a wireless device having a controller coupled to a memory, the memory storing a plurality of applications for managing respective events, the graphical user interface 'GUI' being provided for the applications and displayed on a display, the GUI comprising:

a main screen for displaying on the display, the main screen comprising an application portion for displaying a plurality of application icons associated with a respective application or function in the plurality of applications, the application icons occupying a major portion of the main screen;

at least one monitoring component to determine the occurrence of new events of the applications; and

at least one icon modifying component to visually modify at least one of the application icons in the application portion of the main screen in response to a new event in respect of at least one of the applications to notify of the new event;

wherein the application icons are maintained on the main screen continuously.

34. (New) The GUI of claim 33 wherein said GUI is configured to maintain a count of new events for respective applications and said icon modifying component is configured to modify in response to said count.

35. (New) The GUI of claim 33 wherein the icon modifying component is configured to display a preview of a content of the new event.

36. (New) The GUI of claim 35 wherein the icon modifying component is configured to display a preview in response to a user interaction with the one of the application icons in the application portion.

37. (New) The GUI of claim 36 wherein said display of a preview comprises displaying a dialog box over a portion of the main screen.

38. (New) The GUI of claim 33, wherein in response to a user interaction with the one of the application icons in the application portion, said GUI is configured to invoke the application associated with the one of the application icons to display the new event.

39. (New) The GUI of claim 33 wherein said wireless device comprises at least one of a wireless data communication device and a wireless voice communication device; wherein at least some of said plurality of applications are configured to manage communications capabilities associated with the wireless device and wherein said new events of said at least some of said plurality of applications comprise communication events.

40. (New) The GUI of claim 33 wherein the icon modifying component is configured to modify the one of the application icons in the application portion to notify of a plurality of new events.

41. (New) The GUI of claim 40 wherein the icon modifying component is configured to play a preview of a content of each new event in the plurality of new events.

REMARKS/ARGUMENTS

Claims 1 to 20 are cancelled without prejudice. New claims 21-41 are presented for the Examiner's consideration. No admission or representation is made by the present argument other than that explicitly provided herein.

The Examiner stated that the specification discloses that the instant application claims benefit to a U.S. Provisional Patent Application and that the U.S. Provisional Patent Application is incorrectly listed as 60/525,959 and should be listed as 60/525,958. The Examiner is correct in this assertion, as the Applicant had previously submitted a letter of correction of domestic priority information to the USPTO on September 9, 2005, pointing this out. With this response, the Applicant submits specification replacement paragraph 0001 correcting the error in the specification such that the specification now refers to Provisional Patent Application No. 60/525,958.

The Examiner rejected original claims 1, 6-8, 10, and 11 under 35 U.S.C. § 112, first paragraph, for not providing enablement. The Examiner further stated that the method consists of a single step and is thus interpreted as a single means/single step claim under MPEP 2164.08(a). With this statement, the Examiner appears to be suggesting that the claims are overly broad. While the Applicant does not necessarily agree with the Examiner's rejection under 35 U.S.C. § 112, it is submitted that the rejection is rendered moot in view of the Applicant's cancellation of original claims 1-20 and presentation of new claims 21-41. New method claim 21 provides more detail than original claim 1 and recites more than one step. It is submitted that new claims 21-41 comply with 35 U.S.C. § 112.

The Examiner further rejected original claim 7 under 35 U.S.C. § 112 for insufficient antecedent basis. New claim 27, which corresponds to original claim 7, has been revised to correct this error.

The Examiner rejected original claims 1-4, 9-12, and 17-20 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2002/0160817 to Salmimaa et al. ("Salmimaa"). The Examiner further rejected original claims 5-8 and 13-16 under 35

U.S.C. § 103(a) as being obvious over Salmimaa in view of U.S. Patent Publication No. 2005/0248437 to Hellebust et al. ("Hellebust"). The Applicant respectfully submits that the subject matter defined by new claims 21 to 41 is both new and non-obvious in view of Salmimaa and/or Hellebust for the reasons set forth below.

The present application is directed to a method and system for providing notifications of new events on a wireless device. The wireless device has a graphical user interface "GUI" displayed on a display of the wireless device. The GUI has a main screen comprising an application portion for displaying icons for respective applications or functions for execution on the wireless device. The method comprises the steps of: providing on the main screen and in the application portion a plurality of application icons each representing an application for managing respective events on the wireless device, the application icons occupying a major portion of the main screen; and in response to a new event in respect of one of the applications, visually modifying the respective application icon in the application portion of the main screen to notify of the new event; wherein the application icons are maintained on the main screen continuously.

In contrast, Salmimaa concerns modifying icons in a context bar of a mobile terminal (Paragraph 0024). The context bar comprises a plurality of icons displayed along an edge of the display (i.e., a horizontal edge as shown in FIG. 1 or a vertical edge as shown in FIG. 2). The sizes of the icons are modified together in response to context values. The context values relate to variables associated with the icons, such as the prices of services or goods associated with the icons, the distance of the establishments associated with the icons from the location of the mobile terminal, etc. (Paragraph 0029).

The arrangement of icons along an edge of the display shown by Salmimaa is done because the mobile terminal of Salmimaa is fundamentally different from the wireless device presently claimed. The claimed wireless device GUI has a GUI having a main screen comprising an application portion for displaying icons for respective applications or functions for execution on the wireless device. Salmimaa does not disclose or suggest displaying icons in an application portion of the screen because the screen of Salmimaa is sufficiently large such that the icons are arranged along an edge of

the screen. As such, the mobile terminal of Salmimaa does not present the same technical challenges associated with the claimed wireless device of which the claimed subject matter is designed to address. For this reason, Salmimaa fails to teach or suggest many of the features recited in claim 21. Salmimaa additionally fails to teach or suggest providing on the main screen and in the application portion a plurality of application icons. Further, the change of size of the icons disclosed by Salmimaa is not in response to a new event in respect of one of the applications, as presently claimed. In contrast, Salmimaa discloses changing the size of all of the icons in response to context values, which are related to data gathered by the mobile terminal. As such, Salmimaa fails to disclose or suggest, in response to a new event in respect of one of the applications, visually modifying the respective application icon in the application portion of the main screen to notify of the new event. Further, the change in size of icons disclosed by Salmimaa presents an indication to a user of a relationship of the context values; it does not notify of a new event, as presently claimed.

Since Salmimaa fails to disclose or suggest each and every feature recited in claim 21, claim 21 is patentable over Salmimaa. Claim 33 claims a graphical user interface for use on a wireless device and recites many of the same features as claim 21 and is patentable for the same reasons. Claims 22-32 and 34-41 depend, either directly or indirectly, from claims 21 and 33 and are patentable for the same reasons.

Hellebust concerns a filtered in-box for voice mail, e-mail, pages, web-based information, and faxes. Hellebust does not appear to concern modifying icons in any way and therefore fails to cure the deficiencies of Salmimaa. It is therefore submitted that the claims are patentable over Salmimaa and/or Hellebust, whether taken alone or in combination.

Favourable reconsideration and allowance of the application are respectfully requested. Should the Examiner have any questions in connection with the Applicant's submissions, please contact the undersigned.

Respectfully submitted,

**OGILVY RENAULT LLP**

Date: June 20, 2007

By \_\_\_\_\_  
Paul J. Field  
Registration No. 34,963  
Telephone (416) 216-3903  
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Suite 3800, Royal Bank Plaza, South Tower  
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Canada

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	1890985
<b>Application Number:</b>	10784781
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	2200
<b>Title of Invention:</b>	Previewing a new event on a small screen device
<b>First Named Inventor/Applicant Name:</b>	Gerhard D. Klassen
<b>Customer Number:</b>	20988
<b>Filer:</b>	Paul Joseph Field/Janani Kulasingam
<b>Filer Authorized By:</b>	Paul Joseph Field
<b>Attorney Docket Number:</b>	16813-1US
<b>Receipt Date:</b>	20-JUN-2007
<b>Filing Date:</b>	24-FEB-2004
<b>Time Stamp:</b>	13:53:11
<b>Application Type:</b>	Utility

### Payment information:

Submitted with Payment	no
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### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)	Multi Part /.zip	Pages (if appl.)
1	Preliminary Amendment	OfficeActionResponse.pdf	1091523	no	10

### Warnings:



<b>Information:</b>	
<b>Total Files Size (in bytes):</b>	1091523
<p><b>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.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  <b>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.</b></p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  <b>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.</b></p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  <b>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.</b></p>	

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.

PATENT APPLICATION FEE DETERMINATION RECORD						Application or Docket Number <b>0784781</b>			
Substitute for Form PTO-875									
<b>APPLICATION AS FILED - PART I</b>									
(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(e), (b), or (c))									
SEARCH FEE (37 CFR 1.16(k), (l), or (m))									
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))									
TOTAL CLAIMS (37 CFR 1.16(j))	20	minus 20 =		x 25 =		x 50 =			
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3	minus 3 =		x 100 =		x 200 =			
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))				180		360			
				TOTAL		TOTAL			
* If the difference in column 1 is less than zero, enter "0" in column 2.									
<b>APPLICATION AS AMENDED - PART II</b>									
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY	
AMENDMENT A	6/20/07	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(j))	21	Minus	20	=	x 25 =		x 50 =	
	Independent (37 CFR 1.16(h))	2	Minus	3	=	x 100 =		x 200 =	
	Application Size Fee (37 CFR 1.16(s))								
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					180		360		
					TOTAL ADD'L FEE		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.									
AMENDMENT B		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(j))		Minus		=	x 25 =		x 50 =	
	Independent (37 CFR 1.16(h))		Minus		=	x 100 =		x 200 =	
	Application Size Fee (37 CFR 1.16(s))								
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					180		360		
					TOTAL ADD'L FEE		TOTAL ADD'L FEE		

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.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,781	02/24/2004	Gerhard D. Klassen	16813-IUS	2200

20988 7590 07/18/2007  
OGILVY RENAULT LLP  
1981 MCGILL COLLEGE AVENUE  
SUITE 1600  
MONTREAL, QC H3A2Y3  
CANADA

EXAMINER

HEFFINGTON, JOHN M

ART UNIT	PAPER NUMBER
2179	

MAIL DATE	DELIVERY MODE
07/18/2007	PAPER

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 Non-Compliant  
Amendment (37 CFR 1.121)**

Application No. <u>10784781</u>	Applicant(s)	
Examiner <u>Heffington</u>	Art Unit <u>2179</u>	

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

The amendment document filed on 6/20/07 is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121 or 1.4. In order for the amendment document to be compliant, correction of the following item(s) is required.

THE FOLLOWING MARKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

- 1. Amendments to the specification:
  - A. Amended paragraph(s) do not include markings.
  - B. New paragraph(s) should not be underlined.
  - C. Other: \_\_\_\_\_.
- 2. Abstract:
  - A. Not presented on a separate sheet. 37 CFR 1.72.
  - B. Other: \_\_\_\_\_.
- 3. Amendments to the drawings:
  - A. The drawings are not properly identified in the top margin as "Replacement Sheet," "New Sheet," or "Annotated Sheet" as required by 37 CFR 1.121(d).
  - B. The practice of submitting proposed drawing correction has been eliminated. Replacement drawings showing amended figures, without markings, in compliance with 37 CFR 1.84 are required.
  - C. Other: \_\_\_\_\_.
- 4. Amendments to the claims:
  - A. A complete listing of all of the claims is not present.
  - B. The listing of claims does not include the text of all pending claims (including withdrawn claims)
  - C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Canceled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-currently amended).
  - D. The claims of this amendment paper have not been presented in ascending numerical order.
  - E. Other: \_\_\_\_\_.
- 5. Other (e.g., the amendment is unsigned or not signed in accordance with 37 CFR 1.4):  
\_\_\_\_\_

For further explanation of the amendment format required by 37 CFR 1.121, see MPEP § 714.

**TIME PERIODS FOR FILING A REPLY TO THIS NOTICE:**

- Applicant is given **no new time period** if the non-compliant amendment is an after-final amendment, an amendment filed after allowance, or a drawing submission (only). If applicant wishes to resubmit the non-compliant after-final amendment with corrections, the **entire corrected amendment** must be resubmitted.
- Applicant is given **one month**, or thirty (30) days, whichever is longer, from the mail date of this notice to supply the correction, if the non-compliant amendment is one of the following: a preliminary amendment, a non-final amendment (including a submission for a request for continued examination (RCE) under 37 CFR 1.114), a supplemental amendment filed within a suspension period under 37 CFR 1.103(a) or (c), and an amendment filed in response to a *Quayle* action. If any of above boxes 1. to 4. are checked, the correction required is only the **corrected section** of the non-compliant amendment in compliance with 37 CFR 1.121.

**Extensions of time** are available under 37 CFR 1.136(a) only if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action.

**Failure to timely respond** to this notice will result in:

**Abandonment** of the application if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action; or

**Non-entry** of the amendment if the non-compliant amendment is a preliminary amendment or supplemental amendment.

Donya McBride  
Legal Instruments Examiner (LIE), if applicable

571-272-6609  
Telephone No.

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	2066511
<b>Application Number:</b>	10784781
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	2200
<b>Title of Invention:</b>	Previewing a new event on a small screen device
<b>First Named Inventor/Applicant Name:</b>	Gerhard D. Klassen
<b>Customer Number:</b>	20988
<b>Filer:</b>	Paul Joseph Field/Janani Kulasingam
<b>Filer Authorized By:</b>	Paul Joseph Field
<b>Attorney Docket Number:</b>	16813-1US
<b>Receipt Date:</b>	09-AUG-2007
<b>Filing Date:</b>	24-FEB-2004
<b>Time Stamp:</b>	15:19:19
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	no
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### File Listing:

Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	Letter.pdf	300255 <small>2a060690d18bdcf67b7f9cf742976bd4c5d2788</small>	no	1

### Warnings:

<b>Information:</b>					
2	Preliminary Amendment	Response.pdf	3024228	no	10
			c524d2a99687892c91650288cddb501c eccfd734		
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>				3324483	
<p><b>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.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  <b>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.</b></p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  <b>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.</b></p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  <b>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.</b></p>					



LLP / S.E.N.C.P.L., s.r.l.

Paul J. Field  
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Direct Fax: (416) 216-3930  
pfield@ogilvyrenault.com

Toronto, August 9, 2007

United States Patent and Trademark Office  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
U.S.A.

Dear Sir/Madam:

**RE: U.S. Patent Application No. 10/784,781**  
**Title: PREVIEWING A NEW EVENT ON A SMALL SCREEN DEVICE**  
**Inventors: Gerhard D. KLASSEN et al.**  
**Our Ref: 16813-IUS**

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In response to your communication of July 18, 2007, we are re-submitting herewith the Office Action Response. Please note that this Response has been electronically signed.

Respectfully Submitted,  
**OGILVY RENAULT LLP**

Paul J. Field  
B.A.Sc., P. ENG. LL.B.  
PJF/MVE:jk

---

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Montréal • Ottawa • Québec • Toronto • London

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 10/784,781

Art Unit: 2109

Filed: 02/24/2004

Confirmation No.: 2200

Applicant: Gerhard D. Klassen et al.

Examiner: Heffington, John M.

Title: PREVIEWING A NEW EVENT ON A SMALL SCREEN DEVICE

Docket No.: 16813-1US

Customer No.: 020988

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MS AMENDMENT  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, V.A. 22313-1450

Dear Sir/Madam:

**RESPONSE TO OFFICE ACTION**

This is in response to the Office Action of March 21, 2007. Please amend the application as follows:

**Amendments to the Specification** appear on page 2.

**Amendments to the Claims** appear on page 3.

**Remarks/Arguments** appear on page 7.

Excess claim fees in the amount of \$50 for an additional 1 claim (1 x \$50 = \$50) in connection with new claims 21 to 41 are included in our authorization of today's date. Please charge Deposit Account No. 195113 in the amount of \$50 to cover the excess claim fees. The Director is authorized the charge any deficiency or credit any overpayment to our Deposit Account No. 195113.



**Amendments to the Specification**

*Please replace all prior versions of Paragraph 0001 found on page 1 with the following:*

**[0001]** This application claims the benefit of U.S. Provisional Patent Application No. ~~60/525,959~~ 60/525,958 filed December 01, 2003.

**Amendments to the Claims**

*Please replace the existing listing of claims with the following:*

Claims 1-20 (Cancelled)

21. (New) A method for providing notifications of new events on a wireless device, the wireless device having a graphical user interface 'GUI' displayed on a display of the wireless device, the GUI having a main screen comprising an application portion for displaying icons for respective applications or functions for execution on the wireless device, the method comprising:

providing on the main screen and in the application portion a plurality of application icons each representing an application for managing respective events on the wireless device, the application icons occupying a major portion of the main screen; and

in response to a new event in respect of one of the applications, visually modifying the respective application icon in the application portion of the main screen to notify of the new event;

wherein the application icons are maintained on the main screen continuously.

22. (New) The method of claim 21 comprising invoking the one application in the application portion in response to the visually modified icon.

23. (New) The method of claim 21 comprising monitoring the one application in the application portion to determine an occurrence of the new event.

24. (New) The method of claim 21 further comprising:

determining a visual modification for the icon of the one application icon in the application portion in response to the new event; and

using said visual modification when visually modifying.

25. (New) The method of claim 24 wherein said step of determining a visual modification comprises maintaining a count of new events for the one application in the application portion.
26. (New) The method of claim 21 wherein said visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of the new event.
27. (New) The method of claim 26 wherein said displaying a preview is responsive to a user action.
28. (New) The method of claim 27 wherein said displaying a preview of a content comprises displaying a dialog box over a portion of the main screen.
29. (New) The method of claim 21 further comprising: in response to an activation of the one application in the application portion having its icon visually modified to notify of the new event, automatically navigating through the one application to the new event.
30. (New) The method of claim 21 wherein said wireless device comprises at least one of a data communication device and a voice communication device; wherein at least some of said plurality of applications manage communications capabilities associated with the wireless device and wherein said events of said at least some of said plurality of applications comprise communication events.
31. (New) The method of claim 21 further comprising, in response to a plurality of new events, visually modifying the icon of the one application in the application portion to notify of the plurality of new events.
32. (New) The method of claim 31 wherein said visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of each of the plurality of new events.

33. (New) A graphical user interface 'GUI' for a wireless device having a controller coupled to a memory, the memory storing a plurality of applications for managing respective events, the graphical user interface 'GUI' being provided for the applications and displayed on a display, the GUI comprising:

    a main screen for displaying on the display, the main screen comprising an application portion for displaying a plurality of application icons associated with a respective application or function in the plurality of applications, the application icons occupying a major portion of the main screen;

    at least one monitoring component to determine the occurrence of new events of the applications; and

    at least one icon modifying component to visually modify at least one of the application icons in the application portion of the main screen in response to a new event in respect of at least one of the applications to notify of the new event;

    wherein the application icons are maintained on the main screen continuously.

34. (New) The GUI of claim 33 wherein said GUI is configured to maintain a count of new events for respective applications and said icon modifying component is configured to modify in response to said count.

35. (New) The GUI of claim 33 wherein the icon modifying component is configured to display a preview of a content of the new event.

36. (New) The GUI of claim 35 wherein the icon modifying component is configured to display a preview in response to a user interaction with the one of the application icons in the application portion.

37. (New) The GUI of claim 36 wherein said display of a preview comprises displaying a dialog box over a portion of the main screen.

38. (New) The GUI of claim 33, wherein in response to a user interaction with the one of the application icons in the application portion, said GUI is configured to invoke the application associated with the one of the application icons to display the new event.

39. (New) The GUI of claim 33 wherein said wireless device comprises at least one of a wireless data communication device and a wireless voice communication device; wherein at least some of said plurality of applications are configured to manage communications capabilities associated with the wireless device and wherein said new events of said at least some of said plurality of applications comprise communication events.

40. (New) The GUI of claim 33 wherein the icon modifying component is configured to modify the one of the application icons in the application portion to notify of a plurality of new events.

41. (New) The GUI of claim 40 wherein the icon modifying component is configured to play a preview of a content of each new event in the plurality of new events.

**REMARKS/ARGUMENTS**

Claims 1 to 20 are cancelled without prejudice. New claims 21-41 are presented for the Examiner's consideration. No admission or representation is made by the present argument other than that explicitly provided herein.

The Examiner stated that the specification discloses that the instant application claims benefit to a U.S. Provisional Patent Application and that the U.S. Provisional Patent Application is incorrectly listed as 60/525,959 and should be listed as 60/525,958. The Examiner is correct in this assertion, as the Applicant had previously submitted a letter of correction of domestic priority information to the USPTO on September 9, 2005, pointing this out. With this response, the Applicant submits specification replacement paragraph 0001 correcting the error in the specification such that the specification now refers to Provisional Patent Application No. 60/525,958.

The Examiner rejected original claims 1, 6-8, 10, and 11 under 35 U.S.C. § 112, first paragraph, for not providing enablement. The Examiner further stated that the method consists of a single step and is thus interpreted as a single means/single step claim under MPEP 2164.08(a). With this statement, the Examiner appears to be suggesting that the claims are overly broad. While the Applicant does not necessarily agree with the Examiner's rejection under 35 U.S.C. § 112, it is submitted that the rejection is rendered moot in view of the Applicant's cancellation of original claims 1-20 and presentation of new claims 21-41. New method claim 21 provides more detail than original claim 1 and recites more than one step. It is submitted that new claims 21-41 comply with 35 U.S.C. § 112.

The Examiner further rejected original claim 7 under 35 U.S.C. § 112 for insufficient antecedent basis. New claim 27, which corresponds to original claim 7, has been revised to correct this error.

The Examiner rejected original claims 1-4, 9-12, and 17-20 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2002/0160817 to Salmimaa et al. ("Salmimaa"). The Examiner further rejected original claims 5-8 and 13-16 under 35

U.S.C. § 103(a) as being obvious over Salmimaa in view of U.S. Patent Publication No. 2005/0248437 to Hellebust et al. ("Hellebust"). The Applicant respectfully submits that the subject matter defined by new claims 21 to 41 is both new and non-obvious in view of Salmimaa and/or Hellebust for the reasons set forth below.

The present application is directed to a method and system for providing notifications of new events on a wireless device. The wireless device has a graphical user interface 'GUI' displayed on a display of the wireless device. The GUI has a main screen comprising an application portion for displaying icons for respective applications or functions for execution on the wireless device. The method comprises the steps of: providing on the main screen and in the application portion a plurality of application icons each representing an application for managing respective events on the wireless device, the application icons occupying a major portion of the main screen; and in response to a new event in respect of one of the applications, visually modifying the respective application icon in the application portion of the main screen to notify of the new event; wherein the application icons are maintained on the main screen continuously.

In contrast, Salmimaa concerns modifying icons in a context bar of a mobile terminal (Paragraph 0024). The context bar comprises a plurality of icons displayed along an edge of the display (i.e., a horizontal edge as shown in FIG. 1 or a vertical edge as shown in FIG. 2). The sizes of the icons are modified together in response to context values. The context values relate to variables associated with the icons, such as the prices of services or goods associated with the icons, the distance of the establishments associated with the icons from the location of the mobile terminal, etc. (Paragraph 0029).

The arrangement of icons along an edge of the display shown by Salmimaa is done because the mobile terminal of Salmimaa is fundamentally different from the wireless device presently claimed. The claimed wireless device GUI has a GUI having a main screen comprising an application portion for displaying icons for respective applications or functions for execution on the wireless device. Salmimaa does not disclose or suggest displaying icons in an application portion of the screen because the screen of Salmimaa is sufficiently large such that the icons are arranged along an edge of

the screen. As such, the mobile terminal of Salmimaa does not present the same technical challenges associated with the claimed wireless device of which the claimed subject matter is designed to address. For this reason, Salmimaa fails to teach or suggest many of the features recited in claim 21. Salmimaa additionally fails to teach or suggest providing on the main screen and in the application portion a plurality of application icons. Further, the change of size of the icons disclosed by Salmimaa is not in response to a new event in respect of one of the applications, as presently claimed. In contrast, Salmimaa discloses changing the size of all of the icons in response to context values, which are related to data gathered by the mobile terminal. As such, Salmimaa fails to disclose or suggest, in response to a new event in respect of one of the applications, visually modifying the respective application icon in the application portion of the main screen to notify of the new event. Further, the change in size of icons disclosed by Salmimaa presents an indication to a user of a relationship of the context values; it does not notify of a new event, as presently claimed.

Since Salmimaa fails to disclose or suggest each and every feature recited in claim 21, claim 21 is patentable over Salmimaa. Claim 33 claims a graphical user interface for use on a wireless device and recites many of the same features as claim 21 and is patentable for the same reasons. Claims 22-32 and 34-41 depend, either directly or indirectly, from claims 21 and 33 and are patentable for the same reasons.

Hellebust concerns a filtered in-box for voice mail, e-mail, pages, web-based information, and faxes. Hellebust does not appear to concern modifying icons in any way and therefore fails to cure the deficiencies of Salmimaa. It is therefore submitted that the claims are patentable over Salmimaa and/or Hellebust, whether taken alone or in combination.

Favourable reconsideration and allowance of the application are respectfully requested. Should the Examiner have any questions in connection with the Applicant's submissions, please contact the undersigned.





**PATENT APPLICATION FEE DETERMINATION RECORD**  
Effective October 1, 2003

Application or Docket Number

10784781

**CLAIMS AS FILED - PART I**

	(Column 1)	(Column 2)
TOTAL CLAIMS	20	
FOR	NUMBER FILED	NUMBER EXTRA
TOTAL CHARGEABLE CLAIMS	20 minus 20 =	*
INDEPENDENT CLAIMS	7 minus 3 =	*
MULTIPLE DEPENDENT CLAIM PRESENT	<input type="checkbox"/>	

SMALL ENTITY TYPE

OR OTHER THAN SMALL ENTITY

RATE	FEE
BASIC FEE	385.00
X\$ 9=	
X43=	
+145=	
TOTAL	

RATE	FEE
BASIC FEE	770.00
X\$18=	
X86=	
+290=	
TOTAL	770

\* If the difference in column 1 is less than zero, enter "0" in column 2

**CLAIMS AS AMENDED - PART II**

8-9-07

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR
	Total	* 20 Minus **	=
	Independent	* 3 Minus ***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

SMALL ENTITY

OR OTHER THAN SMALL ENTITY

RATE	ADDITIONAL FEE
X\$ 9=	
X43=	
+145=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$18=	
X86=	
+290=	
TOTAL ADDIT. FEE	

12-20

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR
	Total	* Minus **	=
	Independent	* Minus ***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

RATE	ADDITIONAL FEE
X\$ 9=	
X43=	
+145=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$18=	
X86=	
+290=	
TOTAL ADDIT. FEE	

	(Column 1)	(Column 2)	(Column 3)
AMENDMENT C	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR
	Total	* Minus **	=
	Independent	* Minus ***	=
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <input type="checkbox"/>			

RATE	ADDITIONAL FEE
X\$ 9=	
X43=	
+145=	
TOTAL ADDIT. FEE	

RATE	ADDITIONAL FEE
X\$18=	
X86=	
+290=	
TOTAL ADDIT. 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.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,781	02/24/2004	Gerhard D. Klassen	16813-1US	2200

20988 7590 12/07/2007  
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MONTREAL, QC H3A2Y3  
CANADA

EXAMINER

HEFFINGTON, JOHN M

ART UNIT	PAPER NUMBER
2179	

MAIL DATE	DELIVERY MODE
12/07/2007	PAPER

**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.

<b>Office Action Summary</b>	<b>Application No.</b> 10/784,781	<b>Applicant(s)</b> KLASSEN ET AL.	
	<b>Examiner</b> John M. Heffington	<b>Art Unit</b> 2179	

-- 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 09 August 2007.
- 2a)  This action is **FINAL**.                      2b)  This action is non-final.
- 3)  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**

- 4)  Claim(s) 21-41 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 21-41 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on 24 February 2004 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).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**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)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5)  Notice of Informal Patent Application
- 6)  Other: \_\_\_\_\_.

### **DETAILED ACTION**

This action is in response to amendment filed 9 August 2007. Claims 1-20 have been canceled. Claims 21-41 have been added. Claims 21-41 are pending and have been considered below.

#### ***Response to Arguments***

1. Applicant's arguments with respect to claims 21-41 have been considered but are moot in view of the new ground(s) of rejection. Applicant argues that the limitations contained in the amended claims are not disclosed in the cited art. However, the examiner believes that the features included in the amended claims are disclosed in the cited references as noted in the new rejections.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 21-24, 29, 30, 33, 38 and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Salmimaa (US 2002/0160817 A1).

Claim 21: Salmimaa discloses

- a. a method for providing notifications of new events on a wireless device (paragraph 0026),
- b. the wireless device having a graphical user interface 'GUI' displayed on a display of the wireless device (paragraph 0024, figure 1),
- c. the GUI having a main screen comprising an application portion for displaying icons for respective applications or functions for execution on the wireless device (paragraph 0009, figure 1),
- d. the method comprising: providing on the main screen and in the application portion a plurality of application icons each representing an application for managing respective events on the wireless device (paragraphs 0009, 0024, 0026, figure 1),
- e. the application icons occupying a major portion of the main screen (paragraphs 0009, 0024, figure 1); and
- f. in response to a new event in respect of one of the applications, visually modifying the respective application icon in the application portion of the main screen to notify of the new event (paragraph 0013, 0027); wherein
- g. the application icons are maintained on the main screen continuously (paragraphs 0009 and 0024).

Claim 33: Salmimaa discloses

- a. a graphical user interface 'GUI' for a wireless device (paragraph 0024, figure 1)
- b. having a controller coupled to a memory (figure 4),

- c. the memory storing a plurality of applications for managing respective events (paragraph 0009, figure 4),
- d. the graphical user interface 'GUI' being provided for the applications and displayed on a display (paragraphs 0009, 0024, 0026, figure 1) , the GUI comprising:
- e. a main screen for displaying on the display, the main screen comprising an application portion for displaying a plurality of application icons associated with a respective application or function in the plurality of applications (paragraphs 0009, 0024, 0026, figure 1),
- f. the application icons occupying a major portion of the main screen; at least one monitoring component to determine the occurrence of new events of the applications (paragraphs 0009, 0024, 0026, figure 1); and
- g. at least one icon modifying component to visually modify at least one of the application icons in the application portion of the main screen in response to a new event in respect of at least one of the applications to notify of the new event (paragraph 0013, 0027, figure 4); wherein
- h. the application icons are maintained on' the main screen continuously (paragraphs 0009 and 0024).

Claims 22 and 38: Salmimaa discloses a method and GUI as in claims 21 and 33 and and further discloses an application launcher that launches an application associated with a selected icon in response to further user input (paragraph 0038).

Claim 23: Salmimaa discloses a method of claim 21 featuring an icon of a user more prominently when an email from that user is received, i.e. monitoring for new email messages (events) (paragraph 0045).

Claim 24: Salmimaa discloses a method of claim 21 modifying application icons in response to the messages (paragraph 0013), thereby determining which modification should be made to the icon.

Claim 29: Salmimaa discloses a method of claim 21 for an application launcher that launches an application associated with a selected icon in response to further user input, for example, a web browser or a document (paragraph 0038).

Claims 30 and 39: Salmimaa discloses a method and a Graphical User Interface (GUI) for a mobile terminal of claims 21 and 33 that includes a microprocessor and a memory that communicates with one or more content providers via a wireless means (paragraph 0034).

***Claim Rejections - 35 USC § 103***

4. 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 negated by the manner in which the invention was made.

5. Claims 25-28, 31, 32, 34-37, 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmimaa (US 2002/0160817 A1) in view of Hellebust (US 2005/0248437 A1).

Claims 25 and 34: Salmimaa discloses a method and a graphical user interface (GUI) modifying application icons in response to the messages (paragraph 0013) as in claims 24 and 33 above, thereby determining which modification should be made to the icon, but does not disclose keeping a count of the number of messages received for each icon. Hellebust discloses a method showing the number of messages received under each of the categories (paragraph 0017). Therefore, it would have been obvious to one having ordinary skill in the art for Salmimaa to include a message count for each icon. One would have been motivated to include a message count for each icon to count the number of messages associated with each icon that have the same profile.

Claims 26 and 35: Salmimaa discloses a method and GUI of a mobile terminal of claims 21 and 33 receiving messages (paragraph 0026) and modifying application icons in response to the messages (paragraph 0013) as in claims 1 and 12 above, but does not disclose a method of displaying a preview of content of a new event. Hellebust discloses a method for the display of the wireless device to be updated to reflect that a new message has arrived by displaying the actual message (paragraph 0011).

Therefore, it would have been obvious for to one having ordinary skill in the art for Salmimaa to include a view of the actual message for an icon when a new message arrives. One would have been motivated to display the actual message for an icon when a new message arrives in order to display the content of the message rather than just the modification of the icon.

Claims 27 and 36: Salmimaa discloses a method and GUI of a mobile terminal of claims 26 and 35 receiving messages (paragraph 0026) and modifying application icons in response to the messages (paragraph 0013) and Hellebust discloses a method for the display of the wireless device to be updated to reflect that a new message has arrived by displaying the actual message (paragraph 0011) as in claims 6 and 12 above. Salmimaa further discloses a method of an application launcher that launches an application associated with a selected icon in response to further user input (paragraph 0038).

Claim 28 and 37: Salmimaa and Hellebust disclose a method and GUI of claims 27 and 36 for receiving messages (Salmimaa, paragraph 0026), modifying application icons in response to the messages (Hellebust, paragraph 0013) and an application launcher that launches an application associated with a selected icon in response to further user input (Salmimaa, paragraph 0038) as in claim 7 above, but do not disclose displaying a content preview in a dialog box. A dialog box is a very common way to display information separately from another window at the time of the invention. Therefore, it

would have been obvious for Salmimaa and Hellebust to display a preview of content in a dialog box. One would have been motivated to display a preview of content in a dialog box in order to maximize display space by displaying separate information over other information, therefore adding a third dimension of display space.

Claims 31 and 40: Salmimaa discloses the method and GUI of claims 21 and 33, but does not disclose in response to a plurality of new events, visually modifying the icon of the one application in the application portion to notify of the plurality of new events. However, Salmimaa discloses modifying icons according to messages that come in from outside sources, for example, email messages, price or location (paragraphs 0003, 0026, 0027) and Hellebust discloses keeping count of messages received in each category (0017). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to add in response to a plurality of new events, visually modifying the icon of the one application in the application portion to notify of the plurality of new events to Salmimaa. One could have been motivated to add in response to a plurality of new events, visually modifying the icon of the one application in the application portion to notify of the plurality of new events to Salmimaa because an email application may receive a plurality of email messages or a single icon more than one or more context messages, i.e. price and location. Therefore, an icon may be modified to display the count of email messages or the plurality of messages received concerning, for example, price or location.

Claims 32 and 41: Salmimaa and Hellebust discloses the method and GUI of claims 31 and 40 and further discloses visually modifying the icon of the one application in the application portion comprises displaying a preview of a new event (Salmimaa: paragraphs 0026, 0013, Hellebust: paragraph 0011), but does not disclose visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of each of the plurality of new events. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to add visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of each of the plurality of new events to Salmimaa and Hellebust. One could have been motivated to add visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of each of the plurality of new events to Salmimaa and Hellebust because if Salmimaa and Hellebust disclose visually modifying the icon of the one application in the application portion comprises displaying a preview of a single new event, then Salmimaa and Hellebust could visually modifying the icon of the one application in the application portion comprises displaying a preview of a plurality of new events.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Application/Control Number:  
10/784,781  
Art Unit: 2179

Page 10

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 date of this final action.

Application/Control Number:  
10/784,781  
Art Unit: 2179

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Heffington whose telephone number is (571) 270-1696. The examiner can normally be reached on Mon - Fri 8:00 - 5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. 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.

JMH  
12/7/07

  
WEILUN LO  
SUPERVISORY PATENT EXAMINER

<b>Search Notes</b>  	<b>Application/Control No.</b> 10784781	<b>Applicant(s)/Patent Under Reexamination</b> KLASSEN ET AL.
	<b>Examiner</b> Heffington, John M	<b>Art Unit</b> 2109

<b>SEARCHED</b>			
<b>Class</b>	<b>Subclass</b>	<b>Date</b>	<b>Examiner</b>
715	700	3/1/2007	JMH

<b>SEARCH NOTES</b>			
<b>Search Notes</b>		<b>Date</b>	<b>Examiner</b>
EAST Search		3/1/2007	JMH
EAST Search (update)		12/7/2007	JMH

<b>INTERFERENCE SEARCH</b>			
<b>Class</b>	<b>Subclass</b>	<b>Date</b>	<b>Examiner</b>

**REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL  
(Submitted Only via EFS-Web)**

Application Number	10/784,781	Filing Date	2004-02-24	Docket Number (if applicable)	16813-1US	Art Unit	2109
First Named Inventor	Gerhard D. Klassen et al.			Examiner Name	HEFFINGTON, John M.		

**This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.**  
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

**SUBMISSION REQUIRED UNDER 37 CFR 1.114**

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

Consider the arguments in the Appeal Brief or Reply Brief previously filed on \_\_\_\_\_

Other \_\_\_\_\_

Enclosed

Amendment/Reply

Information Disclosure Statement (IDS)

Affidavit(s)/ Declaration(s)

Other \_\_\_\_\_

**MISCELLANEOUS**

Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months \_\_\_\_\_  
(Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

Other \_\_\_\_\_

**FEES**

**The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.**

The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to  
Deposit Account No 195113

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED**

Patent Practitioner Signature

Applicant Signature



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.

Signature of Registered U.S. Patent Practitioner			
Signature	/pjf/	Date (YYYY-MM-DD)	2008-01-28
Name	Paul J. Field	Registration Number	34963

This collection of information is required by 37 CFR 1.114. 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.

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

## Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	10784781			
<b>Filing Date:</b>	24-Feb-2004			
<b>Title of Invention:</b>	Previewing a new event on a small screen device			
First Named Inventor/Applicant Name:	Gerhard D. Klassen			
<b>Filer:</b>	Paul Joseph Field/Lioba Reeves-Bet			
<b>Attorney Docket Number:</b>	16813-1US			
Filed as Large Entity				
<b>Utility Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
Post-Allowance-and-Post-Issuance:				
<b>Extension-of-Time:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
Request for continued examination	1801	1	810	810
<b>Total in USD (\$)</b>				<b>810</b>

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	2773731
<b>Application Number:</b>	10784781
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	2200
<b>Title of Invention:</b>	Previewing a new event on a small screen device
<b>First Named Inventor/Applicant Name:</b>	Gerhard D. Klassen
<b>Customer Number:</b>	20988
<b>Filer:</b>	Paul Joseph Field/Lioba Reeves-Bet
<b>Filer Authorized By:</b>	Paul Joseph Field
<b>Attorney Docket Number:</b>	16813-1US
<b>Receipt Date:</b>	28-JAN-2008
<b>Filing Date:</b>	24-FEB-2004
<b>Time Stamp:</b>	12:42:46
<b>Application Type:</b>	Utility under 35 USC 111(a)

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Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$ 810
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<b>File Listing:</b>					
<b>Document Number</b>	<b>Document Description</b>	<b>File Name</b>	<b>File Size(Bytes) /Message Digest</b>	<b>Multi Part /.zip</b>	<b>Pages (if appl.)</b>
1	Amendment After Final	Response-to-Final-Office-Action.pdf	398483	no	10
			630b399a1f9ab254e8a6523dc0a3367f8bef88d5		
<b>Warnings:</b>					
<b>Information:</b>					
2	Request for Continued Examination (RCE)	RCE-PTOSB30EFS.pdf	1135605	no	3
			bd06815b181639f71ef8c8bd63538078c69e3d36a		
<b>Warnings:</b>					
<b>Information:</b>					
3	Fee Worksheet (PTO-06)	fee-info.pdf	8175	no	2
			344458b198d63ae172116e7c4ca0c518e9257994		
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			1542263		
<p><b>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.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  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.</p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  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.</p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  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.</p>					

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 10/784,781

Art Unit: 2109

Filed: 02/24/2004

Confirmation No.: 2200

Applicant: Gerhard D. Klassen et al.

Examiner: Heffington, John M.

Title: PREVIEWING A NEW EVENT ON A SMALL SCREEN DEVICE

Docket No.: 16813-1US

Customer No.: 020988

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MS AMENDMENT  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, V.A. 22313-1450

Dear Sir/Madam:

**RESPONSE TO OFFICE ACTION**

This is in response to the Office Action of December 7, 2007. Please amend the application as follows:

**Amendments to the Claims** appear on page 2.

**Remarks/Arguments** appear on page 6.

**Amendments to the Claims**

*Please replace the existing listing of claims with the following:*

Claims 1-20 (Previously Cancelled)

21. (Currently Amended) A method for providing notifications of new events on a wireless communication device having a small display, the wireless communication device having a graphical user interface 'GUI' displayed on a display of the wireless communication device, the GUI having a main screen comprising an application portion for displaying icons for respective applications ~~or functions~~ for execution on the wireless communication device and a status portion for displaying wireless communication device status information, the method comprising:

providing on the main screen and in the application portion a plurality of application icons each representing an application for managing respective events on the wireless device and each being invokable to launch its respective application, the application icons occupying a major portion of the main screen; and

in response to a new event in respect of one of the applications, visually modifying the respective application icon in the application portion of the main screen to notify of the new event;

wherein the application icons are maintained on the main screen continuously.

22. (Original) The method of claim 21 comprising invoking the one application in the application portion in response to the visually modified icon.

23. (Original) The method of claim 21 comprising monitoring the one application in the application portion to determine an occurrence of the new event.

24. (Original) The method of claim 21 further comprising:



determining a visual modification for the icon of the one application icon in the application portion in response to the new event; and

using said visual modification when visually modifying.

25. (Original) The method of claim 24 wherein said step of determining a visual modification comprises maintaining a count of new events for the one application in the application portion.

26. (Original) The method of claim 21 wherein said visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of the new event.

27. (Original) The method of claim 26 wherein said displaying a preview is responsive to a user action.

28. (Original) The method of claim 27 wherein said displaying a preview of a content comprises displaying a dialog box over a portion of the main screen.

29. (Original) The method of claim 21 further comprising: in response to an activation of the one application in the application portion having its icon visually modified to notify of the new event, automatically navigating through the one application to the new event.

30. (Original) The method of claim 21 wherein said wireless device comprises at least one of a data communication device and a voice communication device; wherein at least some of said plurality of applications manage communications capabilities associated with the wireless device and wherein said events of said at least some of said plurality of applications comprise communication events.

31. (Original) The method of claim 21 further comprising, in response to a plurality of new events, visually modifying the icon of the one application in the application portion to notify of the plurality of new events.

32. (Original) The method of claim 31 wherein said visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of each of the plurality of new events.

33. (Currently Amended) A graphical user interface 'GUI' for a wireless communication device having a small display and a controller coupled to a memory, the memory storing a plurality of applications for managing respective events, the graphical user interface 'GUI' being provided for the applications and displayed on a display, the GUI comprising:

a main screen for displaying on the display, the main screen comprising an application portion for displaying a plurality of application icons associated with a respective application ~~or function~~ in the plurality of applications and each being invocable to launch its respective application, the application icons occupying a major portion of the main screen, the main screen further comprising a status portion for displaying wireless communication device status information;

at least one monitoring component to determine the occurrence of new events of the applications; and

at least one icon modifying component to visually modify at least one of the application icons in the application portion of the main screen in response to a new event in respect of at least one of the applications to notify of the new event;

wherein the application icons are maintained on the main screen continuously.

34. (Original) The GUI of claim 33 wherein said GUI is configured to maintain a count of new events for respective applications and said icon modifying component is configured to modify in response to said count.

35. (Original) The GUI of claim 33 wherein the icon modifying component is configured to display a preview of a content of the new event.

36. (Original) The GUI of claim 35 wherein the icon modifying component is configured to display a preview in response to a user interaction with the one of the application icons in the application portion.

37. (Original) The GUI of claim 36 wherein said display of a preview comprises displaying a dialog box over a portion of the main screen.

38. (Original) The GUI of claim 33, wherein in response to a user interaction with the one of the application icons in the application portion, said GUI is configured to invoke the application associated with the one of the application icons to display the new event.

39. (Original) The GUI of claim 33 wherein said wireless device comprises at least one of a wireless data communication device and a wireless voice communication device; wherein at least some of said plurality of applications are configured to manage communications capabilities associated with the wireless device and wherein said new events of said at least some of said plurality of applications comprise communication events.

40. (Original) The GUI of claim 33 wherein the icon modifying component is configured to modify the one of the application icons in the application portion to notify of a plurality of new events.

41. (Original) The GUI of claim 40 wherein the icon modifying component is configured to play a preview of a content of each new event in the plurality of new events.

**REMARKS/ARGUMENTS**

While the Applicant disagrees with the Examiner's rejections set forth in the Office Action dated December 7, 2007, by way of this response the Applicant has made clarifying amendments to claims 21 and 33 to further distinguish the claimed subject matter from the cited references. No admission or representation is made by the present argument other than that explicitly provided herein.

The Examiner rejected claims 21-24, 29, 30, 33, 38, and 39 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Publication No. 2002/0160817 to Salmimaa et al. ("Salmimaa"). The Examiner further rejected claims 25-28, 31, 32, 34-37, 40, and 41 under 35 U.S.C. § 103(a) as being obvious over Salmimaa in view of U.S. Patent Publication No. 2005/0248437 to Hellebust et al. ("Hellebust"). The Applicant respectfully submits that the subject matter defined by claims 21 to 41 is both new and non-obvious in view of Salmimaa and/or Hellebust for the reasons set forth below.

The present application is directed to a method and system for providing notifications of new events on a wireless communication device. The method provides notifications of new events on a wireless communication device having a small display. The wireless communication device has a graphical user interface 'GUI' displayed on a display of the wireless device. The GUI has a main screen comprising an application portion for displaying icons for respective applications for execution on the wireless device and a status portion for displaying wireless communication device status information. The method comprises providing on the main screen and in the application portion a plurality of application icons each representing an application for managing respective events on the wireless device and each being invocable to launch its respective application. The application icons occupy a major portion of the main screen. In response to a new event in respect of one of the applications, the respective application icon in the application portion of the main screen is visually modified to notify of the new event. The application icons are maintained on the main screen continuously.

In contrast, Salmimaa concerns modifying icons in a context bar of a mobile terminal (Paragraph 0024). The context bar comprises a plurality of icons displayed along an edge of the display (i.e., a horizontal edge as shown in FIG. 1 or a vertical edge as shown in FIG. 2). The sizes of the icons are modified together in response to context values. The context values relate to variables associated with the icons, such as the prices of services or goods associated with the icons, the distance of the establishments associated with the icons from the location of the mobile terminal, etc. (Paragraph 0029). The arrangement of icons along an edge of the display shown by Salmimaa is done because the mobile terminal of Salmimaa is fundamentally different from the wireless communication device presently claimed.

Salmimaa does not disclose or suggest displaying icons in an application portion of the screen because the screen of Salmimaa is sufficiently large such that the icons are arranged along an edge of the screen. (FIGS. 1, 2, and 3) In this regard, Salmimaa implicitly teaches away from a wireless communication device having a small display, as presently claimed. As such, the mobile terminal of Salmimaa does not present the same technical challenges associated with the claimed wireless communication device of which the claimed subject matter is designed to address. For this reason, Salmimaa fails to teach or suggest many of the features recited in claim 21.

For example, the claimed wireless communication device has a small display. The wireless communication device GUI has a GUI having a main screen comprising an application portion for displaying icons for respective applications for execution on the wireless device and a status portion for displaying wireless communication device status information. Salmimaa does not teach or suggest a wireless communication device having both an application portion for displaying icons and a status portion for displaying wireless communication device status information.

Salmimaa additionally fails to teach or suggest providing on the main screen and in the application portion a plurality of application icons, each being invocable to launch its respective application. The icons of Salmimaa represent information such as a hyperlink or a document. (Paragraph 0038) The icons of Salmimaa do not represent

respective applications and are not invocable to launch their respective applications, as presently claimed. In this regard, Salmimaa again teaches in a direction that is contrary to the claimed subject matter.

The Applicant notes that, in relation to claim 22, the Examiner suggests that the application launcher 410 described by Salmimaa is the same as the claimed application icons that are each invocable to launch their respective applications. However, this configuration is substantially different from the claimed subject matter. Salmimaa explicitly teaches at paragraph 0038 that icons have associated hyperlinks or documents. If the user clicks one of the icons, the application launcher 410 then determines an appropriate application to open the document associated with the icon that the user clicked and the application launcher 410 then launches that application. As such, the icons of Salmimaa are not directly representative of respective applications, as claimed.

Further, the change of size of the icons disclosed by Salmimaa is not in response to a new event in respect of one of the applications, as presently claimed. Since the icons of Salmimaa are not application icons invocable to launch their respective applications, as presently claimed, it follows that the icons of Salmimaa would not change in size in response to new events in respect of those applications. In contrast, Salmimaa discloses changing the size of all of the icons in response to context values, which are related to data gathered by the mobile terminal. (see, for example, paragraph 0026) In this respect, Salmimaa again teaches in a direction that is contrary to the claimed subject matter.

As such, Salmimaa fails to disclose or suggest, in response to a new event in respect of one of the applications, visually modifying the respective application icon in the application portion of the main screen to notify of the new event. Further, the change in size of icons disclosed by Salmimaa presents an indication to a user of a relationship of the context values; it does not notify of a new event in respect of an application, as presently claimed.

Since Salmimaa fails to disclose or suggest many of the features recited in claim 21, claim 21 is patentable over Salmimaa. Claim 33 claims a graphical user interface for

use on a wireless device and recites many of the same features as claim 21 and is patentable for the same reasons. Claims 22-32 and 34-41 depend, either directly or indirectly, from claims 21 and 33 and are patentable for the same reasons.

The Examiner has the burden of establishing a *prima facie* case of obviousness. However, the Examiner has failed to provide a motivation as to why one skilled in the art would be motivated to modify the teachings of Salmimaa with the teachings of Hellebust. The Examiner's statements of motivation seem to simply parrot the claim language and provide nothing from within the cited references that show why one skilled in the art would be motivated to modify the teachings of Salmimaa with the teachings of Hellebust. As such, the Examiner has failed to provide a *prima facie* case of obviousness and the claims are patentable over Salmimaa and/or Hellebust.

As the Applicant had previously pointed out in the response submitted on August 9, 2007, Hellebust concerns a filtered in-box for voice mail, e-mail, pages, web-based information, and faxes. Hellebust teaches sending an alert message to users of wireless devices if it is determined that the message is of sufficiently high priority. Hellebust does not appear to concern modifying icons in any way and therefore fails to cure the deficiencies of Salmimaa. The teachings of Hellebust are irrelevant to the teachings of Salmimaa, as well as the claimed subject matter. There is no reason why one skilled in the art reviewing the teachings of Salmimaa, which relate to displaying prioritized icons in a mobile terminal, would modify the teachings of Salmimaa with reference to Hellebust, which relates to a filtered inbox for voicemail and email.

It is therefore submitted that the claims are patentable over Salmimaa and/or Hellebust, whether taken alone or in combination.

Favourable reconsideration and allowance of the application are respectfully requested. Should the Examiner have any questions in connection with the Applicant's submissions, please contact the undersigned.

Respectfully submitted,

**OGILVY RENAULT LLP**

Date: January 28, 2008

By \_\_\_\_\_ /pjf/  
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Canada



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<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875				Application or Docket Number <b>10/784,781</b>		Filing Date <b>02/24/2004</b>		<input type="checkbox"/> To be Mailed			
<b>APPLICATION AS FILED – PART I</b>											
(Column 1)			(Column 2)			SMALL ENTITY <input type="checkbox"/>		OR		OTHER THAN SMALL ENTITY	
FOR		NUMBER FILED	NUMBER EXTRA		RATE (\$)	FEE (\$)	OR		RATE (\$)	FEE (\$)	
<input type="checkbox"/> BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A	N/A		N/A				N/A		
<input type="checkbox"/> SEARCH FEE (37 CFR 1.16(k), (l), or (m))		N/A	N/A		N/A		N/A				
<input type="checkbox"/> 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 \$ =		OR		X \$ =		
<input type="checkbox"/> 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).									
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))											
* If the difference in column 1 is less than zero, enter "0" in column 2.											
<b>APPLICATION AS AMENDED – PART II</b>											
(Column 1)			(Column 2)			SMALL ENTITY		OR		OTHER THAN SMALL ENTITY	
AMENDMENT	<b>01/28/2008</b>	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR		RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(o))	* 21	Minus	** 21	= 0	X \$ =				X \$50=	0
	Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	X \$ =		X \$210=	0		
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))										
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
						TOTAL ADD'L FEE	OR		TOTAL ADD'L FEE	<b>0</b>	
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR		RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(o))	*	Minus	**	=	X \$ =				X \$ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$ =		X \$ =			
	<input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))										
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
						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.										Legal Instrument Examiner: /BRENDA HARRISON/	
** 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.											

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.**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,781	02/24/2004	Gerhard D. Klassen	16813-IUS	2200
20988	7590	04/04/2008	EXAMINER	
OGILVY RENAULT LLP 1981 MCGILL COLLEGE AVENUE SUITE 1600 MONTREAL, QC H3A2Y3 CANADA			HEFFINGTON, JOHN M	
			ART UNIT	PAPER NUMBER
			2179	
			MAIL DATE	DELIVERY MODE
			04/04/2008	PAPER

**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.



### **DETAILED ACTION**

This action is in response to amendment filed 9 August 2007. Claims 1-20 have been canceled. Claims 21-41 have been added. Claims 21-41 are pending and have been considered below.

#### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 28 January 2008 has been entered.

#### ***Response to Arguments***

2. Applicant's arguments filed 28 January 2008 have been fully considered but they are not persuasive.

With respect to the amendments of claims 21 and 33, that applicant argues that Salmimaa (US 2002/0160817 A1) does not disclose

- a. a wireless communication device having a small screen with a status portion for displaying wireless communication device status information, and
- b. each application icon being invokable to launch its respective application.

The examiner respectfully disagrees. Salmimaa discloses a Nokia 9210 Communicator. The Nokia 9210 Communicator is a wireless communication with a small screen with a status portion for displaying wireless communication device status information (paragraph 0024, [http://www.nokia.com/EUROPE\\_NOKIA\\_COM\\_3/r2/support/tutorials/9210i/english/intro.html](http://www.nokia.com/EUROPE_NOKIA_COM_3/r2/support/tutorials/9210i/english/intro.html), page 11, Nokia 9210i Communicator). Further, Salmimaa discloses that selecting an icon may launch its respective application (paragraph 0038).

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 21-24, 29, 30, 33, 38 and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Salmimaa (US 2002/0160817 A1).

Claim 21: Salmimaa discloses

- a. a method for providing notifications of new events on a wireless communication device having a small display (paragraphs 0024, 0026, figure 4),

- b. the wireless communication device having a graphical user interface 'GUI' displayed on a display of the wireless communication device (paragraph 0024, figure 1),
- c. the GUI having a main screen comprising an application portion for displaying icons for respective applications for execution on the wireless communication device (paragraph 0009, figure 1),
- d. and a status portion for displaying wireless communication device status information (paragraph 0024, [http://www.nokia.com/EUROPE\\_NOKIA\\_COM\\_3/r2/support/tutorials/9210i/english/intro.html](http://www.nokia.com/EUROPE_NOKIA_COM_3/r2/support/tutorials/9210i/english/intro.html), page 11, Nokia 9210i Communicator)
- e. the method comprising: providing on the main screen and in the application portion a plurality of application icons each representing an application for managing respective events on the wireless device and each being invocable to launch its respective application (paragraphs 0009, 0024, 0026, 0038, figure 1),
- f. the application icons occupying a major portion of the main screen (paragraphs 0009, 0024, figure 1); and
- g. in response to a new event in respect of one of the applications, visually modifying the respective application icon in the application portion of the main screen to notify of the new event (paragraph 0013, 0027); wherein
- h. the application icons are maintained on the main screen continuously (paragraphs 0009 and 0024).

Claim 33: Salmimaa discloses

- a. a graphical user interface 'GUI' for a wireless communication device (paragraph 0024, figure 1)
- b. having a controller coupled to a memory (figure 4),
- c. the memory storing a plurality of applications for managing respective events (paragraph 0009, figure 4),
- d. the graphical user interface 'GUI' being provided for the applications and displayed on a display (paragraphs 0009, 0024, 0026, figure 1) , the GUI comprising:
- e. a main screen for displaying on the display, the main screen comprising an application portion for displaying a plurality of application icons associated with a respective application in the plurality of applications and each being invocable to launch its respective application (paragraphs 0009, 0024, 0026, 0038, figure 1),
- f. the application icons occupying a major portion of the main screen (paragraphs 0009, 0024, 0026, figure 1);
- g. and a status portion for displaying wireless communication device status information (paragraph 0024, [http://www.nokia.com/EUROPE\\_NOKIA\\_COM\\_3/r2/support/tutorials/9210i/english/intro.html](http://www.nokia.com/EUROPE_NOKIA_COM_3/r2/support/tutorials/9210i/english/intro.html), page 11, Nokia 9210i Communicator)
- h. at least one monitoring component to determine the occurrence of new events of the applications (paragraphs 0009, 0024, 0026, figure 1); and

- i. at least one icon modifying component to visually modify at least one of the application icons in the application portion of the main screen in response to a new event in respect of at least one of the applications to notify of the new event (paragraph 0013, 0027, figure 4); wherein
- j. the application icons are maintained on' the main screen continuously (paragraphs 0009 and 0024).

Claims 22 and 38: Salmimaa discloses a method and GUI as in claims 21 and 33 and and further discloses an application launcher that launches an application associated with a selected icon in response to further user input (paragraph 0038).

Claim 23: Salmimaa discloses a method of claim 21 featuring an icon of a user more prominently when an email from that user is received, i.e. monitoring for new email messages (events) (paragraph 0045).

Claim 24: Salmimaa discloses a method of claim 21 modifying application icons in response to the messages (paragraph 0013), thereby determining which modification should be made to the icon.

Claim 29: Salmimaa discloses a method of claim 21 for an application launcher that launches an application associated with a selected icon in response to further user input, for example, a web browser or a document (paragraph 0038).



Claims 30 and 39: Salmimaa discloses a method and a Graphical User Interface (GUI) for a mobile terminal of claims 21 and 33 that includes a microprocessor and a memory that communicates with one or more content providers via a wireless means (paragraph 0034).

***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 negated by the manner in which the invention was made.

6. Claims 25-28, 31, 32, 34-37, 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmimaa (US 2002/0160817 A1) in view of Hellebust (US 2005/0248437 A1).

Claims 25 and 34: Salmimaa discloses a method and a graphical user interface (GUI) modifying application icons in response to the messages (paragraph 0013) as in claims 24 and 33above, thereby determining which modification should be made to the icon, but does not disclose keeping a count of the number of messages received for each icon. Hellebust discloses a method showing the number of messages received under each of the categories (paragraph 0017). Therefore, it would have been obvious to one having ordinary skill in the art for Salmimaa to include a message count for each icon.

One would have been motivated to include a message count for each icon to count the number of messages associated with each icon that have the same profile.

Claims 26 and 35: Salmimaa discloses a method and GUI of a mobile terminal of claims 21 and 33 receiving messages (paragraph 0026) and modifying application icons in response to the messages (paragraph 0013) as in claims 1 and 12 above, but does not disclose a method of displaying a preview of content of a new event. Hellebust discloses a method for the display of the wireless device to be updated to reflect that a new message has arrived by displaying the actual message (paragraph 0011).

Therefore, it would have been obvious for to one having ordinary skill in the art for Salmimaa to include a view of the actual message for an icon when a new message arrives. One would have been motivated to display the actual message for an icon when a new message arrives in order to display the content of the message rather than just the modification of the icon.

Claims 27 and 36: Salmimaa discloses a method and GUI of a mobile terminal of claims 26 and 35 receiving messages (paragraph 0026) and modifying application icons in response to the messages (paragraph 0013) and Hellebust discloses a method for the display of the wireless device to be updated to reflect that a new message has arrived by displaying the actual message (paragraph 0011) as in claims 6 and 12 above. Salmimaa further discloses a method of an application launcher that launches an

application associated with a selected icon in response to further user input (paragraph 0038).

Claim 28 and 37: Salmimaa and Hellebust disclose a method and GUI of claims 27 and 36 for receiving messages (Salmimaa, paragraph 0026), modifying application icons in response to the messages (Hellebust, paragraph 0013) and an application launcher that launches an application associated with a selected icon in response to further user input (Salmimaa, paragraph 0038) as in claim 7 above, but do not disclose displaying a content preview in a dialog box. A dialog box is a very common way to display information separately from another window at the time of the invention. Therefore, it would have been obvious for Salmimaa and Hellebust to display a preview of content in a dialog box. One would have been motivated to display a preview of content in a dialog box in order to maximize display space by displaying separate information over other information, therefore adding a third dimension of display space.

Claims 31 and 40: Salmimaa discloses the method and GUI of claims 21 and 33, but does not disclose in response to a plurality of new events, visually modifying the icon of the one application in the application portion to notify of the plurality of new events. However, Salmimaa discloses modifying icons according to messages that come in from outside sources, for example, email messages, price or location (paragraphs 0003, 0026, 0027) and Hellebust discloses keeping count of messages received in each category (0017). Therefore, it would have been obvious to one having ordinary skill in

the art at the time of the invention to add in response to a plurality of new events, visually modifying the icon of the one application in the application portion to notify of the plurality of new events to Salmimaa. One could have been motivated to add in response to a plurality of new events, visually modifying the icon of the one application in the application portion to notify of the plurality of new events to Salmimaa because an email application may receive a plurality of email messages or a single icon more than one or more context messages, i.e. price and location. Therefore, an icon may be modified to display the count of email messages or the plurality of messages received concerning, for example, price or location.

Claims 32 and 41: Salmimaa and Hellebust discloses the method and GUI of claims 31 and 40 and further discloses visually modifying the icon of the one application in the application portion comprises displaying a preview of a new event (Salmimaa: paragraphs 0026, 0013, Hellebust: paragraph 0011), but does not disclose visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of each of the plurality of new events. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to add visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of each of the plurality of new events to Salmimaa and Hellebust. One could have been motivated to add visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of each of the plurality of new events to Salmimaa and Hellebust because if Salmimaa and

Hellebust disclose visually modifying the icon of the one application in the application portion comprises displaying a preview of a single new event, then Salmimaa and Hellebust could visually modifying the icon of the one application in the application portion comprises displaying a preview of a plurality of new events.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Heffington whose telephone number is (571) 270-1696. The examiner can normally be reached on Mon - Fri 8:00 - 5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. 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.

Application/Control Number: 10/784,781  
Art Unit: 2179

Page 12

JMH

/Ba Huynh/

Primary Examiner, Art Unit 2179

<b>Notice of References Cited</b>	Application/Control No. 10/784,781	Applicant(s)/Patent Under Reexamination KLASSEN ET AL.	
	Examiner JOHN M. HEFFINGTON	Art Unit 2179	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A US-			
	B US-			
	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	<a href="http://www.nokia.com/EUROPE_NOKIA_COM_3/r2/support/tutorials/9210i/english/intro.html">http://www.nokia.com/EUROPE_NOKIA_COM_3/r2/support/tutorials/9210i/english/intro.html</a> , 2002, page 11
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.


EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	4	("20020160817"   "20050248437").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/03/22 18:12

3/ 23/ 2008 4:27:21 PM

C:\ Documents and Settings\jheffington\ My Documents\ 10784781\ SearchHistory3.wsp



<b>Index of Claims</b> 	<b>Application/Control No.</b> 10784781	<b>Applicant(s)/Patent Under Reexamination</b> KLASSEN ET AL.
	<b>Examiner</b> Heffington, John M	<b>Art Unit</b> 2179

✓	<b>Rejected</b>
=	<b>Allowed</b>


-	<b>Cancelled</b>
÷	<b>Restricted</b>

N	<b>Non-Elected</b>
I	<b>Interference</b>

A	<b>Appeal</b>
O	<b>Objected</b>


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

CLAIM		DATE							
Final	Original	03/05/2007	12/07/2007	03/23/2008					
	1	✓	-	-					
	2	✓	-	-					
	3	✓	-	-					
	4	✓	-	-					
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	32		✓	✓					
	33		✓	✓					
	34		✓	✓					
	35		✓	✓					
	36		✓	✓					

<b>Index of Claims</b> 	<b>Application/Control No.</b> 10784781	<b>Applicant(s)/Patent Under Reexamination</b> KLASSEN ET AL.
	<b>Examiner</b> Heffington, John M	<b>Art Unit</b> 2179

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

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant		<input type="checkbox"/> CPA		<input type="checkbox"/> T.D.		<input type="checkbox"/> R.1.47			
CLAIM		DATE							
Final	Original	03/05/2007	12/07/2007	03/23/2008					
	37		✓	✓					
	38		✓	✓					
	39		✓	✓					
	40		✓	✓					
	41		✓	✓					

<b>Search Notes</b>  	<b>Application/Control No.</b>  10784781	<b>Applicant(s)/Patent Under Reexamination</b>  KLASSEN ET AL.
	<b>Examiner</b>  Heffington, John M	<b>Art Unit</b>  2179

<b>SEARCHED</b>			
<b>Class</b>	<b>Subclass</b>	<b>Date</b>	<b>Examiner</b>
715	700	3/1/2007	JMH

<b>SEARCH NOTES</b>		
<b>Search Notes</b>	<b>Date</b>	<b>Examiner</b>
EAST Search	3/1/2007	JMH
EAST Search (update)	12/7/2007	JMH
EAST Search (update)	3/23/2008	JMH
NPL Search	3/23/2008	JMH

<b>INTERFERENCE SEARCH</b>			
<b>Class</b>	<b>Subclass</b>	<b>Date</b>	<b>Examiner</b>

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 10/784,781

Art Unit: 2179

Filed: 02/24/2004

Confirmation No.: 2200

Applicant: Gerhard D. Klassen et al.

Examiner: Heffington, John M.

Title: PREVIEWING A NEW EVENT ON A SMALL SCREEN DEVICE

Docket No.: 16813-1US

Customer No.: 020988

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MS AMENDMENT  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, V.A. 22313-1450

Dear Sir/Madam:

**RESPONSE TO OFFICE ACTION**

This is in response to the Office Action of April 4, 2008.

**Remarks/Arguments** appear on page 2.

**REMARKS/ARGUMENTS**

**New Arguments in Response to Office Action of April 4, 2008**

In the Applicant's previous response, filed January 28, 2008, the Applicant made claim amendments and submitted four pages of arguments outlining several deficiencies of Salmimaa and/or Hellebust in respect of the Examiner's rejections of the pending claims. These arguments are reproduced below. The Examiner's Office Action of April 4, 2008, appears to be a copy of the Final Office Action of December 7, 2007, with a Response to Arguments section including 12 lines of additional commentary. The Examiner's Response to Arguments fails to address most grounds of argument submitted by the Applicant on January 28.

In fact, the Office Action of April 4, 2008, states at page 2 that "this action is in response to amendment filed 9 August 2007." The Applicant hopes this is not the case, since the Applicant recently filed a request for continued examination and paid the required fee in order to have the new amendments and arguments properly considered by the Examiner.

The Examiner has the burden of establishing a *prima facie* case of anticipation or obviousness. The Applicant has made a sincere attempt to rebut the Examiner's position in the response of January 28, 2008, but the Examiner did not address most grounds of argument submitted by the Applicant. This leaves the Applicant in the untenable position of being unable to respond to most aspects of the Examiner's rejections, because the Applicant has not received a rebuttal in respect of the arguments already presented. The Applicant would appreciate it if the Examiner would address the Applicant's arguments filed on January 28, 2008, so that the Applicant can consider the Examiner's position and respond accordingly.

The Applicant submits the following comments to the Examiner's Response to Arguments. The Examiner first states that Salmimaa discloses a Nokia 9210 Communicator and therefore discloses a small screen having a status portion for

displaying wireless communication device status information. In order to show this, the Examiner cites a new reference appearing to be a Nokia 9210 communicator tutorial and provides a web address and a hardcopy of the newly cited reference. The Examiner cites this new reference in support of the Examiner's 35 U.S.C. § 102(b) anticipation rejection over Salmimaa, which is clearly improper, as the Examiner is not permitted to combine references for a 35 U.S.C. § 102(b) rejection. Therefore, the 35 U.S.C. § 102(b) is improper and the rejection should be withdrawn on this grounds alone.

Further, the Nokia 9210 Communicator pointed to by the Examiner is not analogous to the claimed wireless communication device having a small display. The Nokia 9210 Communicator has a screen and a form factor that is substantially larger than the typical personal digital assistant or cellular phone in use today, or at the time of filing of the Applicant's application (February 24, 2004), as evidenced by the filing date of Salmimaa (April 26, 2001, or almost three years prior). One skilled in the art would appreciate that wireless communication devices shrank substantially over the period from 2001 to 2004.

The Examiner next states that Salmimaa, at paragraph 0038, discloses that selecting an icon may launch its respective application. Paragraph 0038 of Salmimaa states:

In one embodiment, a user of terminal 401 can modify context values contained in storage area 408 using a keypad, cursor, stylus, or similar input device associated with display 412. An optional icon selector function 411, for example a magnifying glass selector, allows the user to move over icons on the display to depict further information regarding the icons and to temporarily enlarge icons of potential interest. Other icon selectors can of course be used without departing from the inventive principles. Application launcher 410 launches an application associated with the selected icon in response to further user input. **For example, application launcher 410 may start a Web browsing application if the particular icon has an associated hyperlink. Alternatively, if an icon represents a document, application launcher 410 can launch a document viewer or editor program.** (emphasis added)

Paragraph 0038 of Salmimaa, reproduced above, explicitly states that the icon is associated with either a hyperlink or a document. When the icon is selected, an

application launcher determines an appropriate application and launches the application associated with the hyperlink or document that is associated with the icon. In contrast to this, the pending claims recite an application portion of a main screen for displaying icons for respective applications. That is, the claimed icons directly represent applications, not documents as disclosed by Salmimaa. No intermediate component, such as the application launcher disclosed by Salmimaa, is needed in the claimed subject matter because the icons of the claimed subject matter represent applications, not documents. Paragraph 0038, cited by the Examiner, clearly and unambiguously teaches in a direction that is contrary to the claimed subject matter.

Therefore, based on the Examiner's Response to Arguments, it is submitted that the rejections are clearly improper and Applicant respectfully requests that the Examiner withdraw the rejections accordingly.

In Applicant's response of January 28, 2008, the Applicant explained why it believes the combination of Salmimaa with Hellebust is improper and deficient. Despite the fact that the Examiner has the burden of establishing a *prima facie* case of obviousness, the Examiner has not responded to the Applicant's rebuttal. The Applicant maintains its position that there is no reason why one skilled in the art would be motivated to modify the teachings of Salmimaa with the teachings of Hellebust. Further, even if the teachings of Salmimaa were modified according to the teachings of Hellebust, Hellebust fails to cure the deficiencies of Salmimaa.

#### **Arguments Previously Submitted**

In the Office Action of April 4, 2008, the Examiner maintains the rejection of claims 21-24, 29, 30, 33, 38, and 39 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Publication No. 2002/0160817 to Salmimaa et al. ("Salmimaa"). The Examiner further maintains the rejection of claims 25-28, 31, 32, 34-37, 40, and 41 under 35 U.S.C. § 103(a) as being obvious over Salmimaa in view of U.S. Patent Publication No. 2005/0248437 to Hellebust et al. ("Hellebust"). The Applicant respectfully disagrees

with the Examiners rejections and submits that claims 21 to 41 are both new and non-obvious in view of Salmimaa and/or Hellebust for the reasons set forth below.

The present application is directed to a method and system for providing notifications of new events on a wireless communication device. The method provides notifications of new events on a wireless communication device having a small display. The wireless communication device has a graphical user interface 'GUI' displayed on a display of the wireless device. The GUI has a main screen comprising an application portion for displaying icons for respective applications for execution on the wireless device and a status portion for displaying wireless communication device status information. The method comprises providing on the main screen and in the application portion a plurality of application icons each representing an application for managing respective events on the wireless device and each being invocable to launch its respective application. The application icons occupy a major portion of the main screen. In response to a new event in respect of one of the applications, the respective application icon in the application portion of the main screen is visually modified to notify of the new event. The application icons are maintained on the main screen continuously.

In contrast, Salmimaa concerns modifying icons in a context bar of a mobile terminal (Paragraph 0024). The context bar comprises a plurality of icons displayed along an edge of the display (i.e., a horizontal edge as shown in FIG. 1 or a vertical edge as shown in FIG. 2). The sizes of the icons are modified together in response to context values. The context values relate to variables associated with the icons, such as the prices of services or goods associated with the icons, the distance of the establishments associated with the icons from the location of the mobile terminal, etc. (Paragraph 0029). The arrangement of icons along an edge of the display shown by Salmimaa is done because the mobile terminal of Salmimaa is fundamentally different from the wireless communication device presently claimed.

Salmimaa does not disclose or suggest displaying icons in an application portion of the screen because the screen of Salmimaa is sufficiently large such that the icons are arranged along an edge of the screen. (FIGS. 1, 2, and 3) In this regard, Salmimaa



teaches away from a wireless communication device having a small display, as presently claimed. As such, the mobile terminal of Salmimaa does not present the same technical challenges associated with the claimed wireless communication device of which the claimed subject matter is designed to address. For this reason, Salmimaa fails to teach or suggest many of the features recited in claim 21.

For example, the claimed wireless communication device has a small display. The wireless communication device GUI has a GUI having a main screen comprising an application portion for displaying icons for respective applications for execution on the wireless device and a status portion for displaying wireless communication device status information. Salmimaa does not teach or suggest a wireless communication device having both an application portion for displaying icons and a status portion for displaying wireless communication device status information.

Salmimaa additionally fails to teach or suggest providing on the main screen and in the application portion a plurality of application icons, each being invokable to launch its respective application. The icons of Salmimaa represent information such as a hyperlink or a document. (Paragraph 0038) The icons of Salmimaa do not represent respective applications and are not invokable to launch their respective applications, as presently claimed. In this regard, Salmimaa again teaches in a direction that is contrary to the claimed subject matter.

The Applicant notes that, in relation to claim 22, the Examiner suggests that the application launcher 410 described by Salmimaa is the same as the claimed application icons that are each invokable to launch their respective applications. However, this configuration is substantially different from the claimed subject matter. Salmimaa explicitly teaches at paragraph 0038 that icons have associated hyperlinks or documents. If the user clicks one of the icons, the application launcher 410 then determines an appropriate application to open the document associated with the icon that the user clicked and the application launcher 410 then launches that application. As such, the icons of Salmimaa are not directly representative of respective applications, as claimed.

Further, the change of size of the icons disclosed by Salmimaa is not in response to a new event in respect of one of the applications, as presently claimed. Since the icons of Salmimaa are not application icons invocable to launch their respective applications, as presently claimed, it follows that the icons of Salmimaa would not change in size in response to new events in respect of those applications. In contrast, Salmimaa discloses changing the size of all of the icons in response to context values, which are related to data gathered by the mobile terminal. (see, for example, paragraph 0026) In this respect, Salmimaa again teaches in a direction that is contrary to the claimed subject matter.

As such, Salmimaa fails to disclose or suggest, in response to a new event in respect of one of the applications, visually modifying the respective application icon in the application portion of the main screen to notify of the new event. Further, the change in size of icons disclosed by Salmimaa presents an indication to a user of a relationship of the context values; it does not notify of a new event in respect of an application, as presently claimed.

Since Salmimaa fails to disclose or suggest many of the features recited in claim 21, claim 21 is patentable over Salmimaa. Claim 33 claims a graphical user interface for use on a wireless device and recites many of the same features as claim 21 and is patentable for the same reasons. Claims 22-32 and 34-41 depend, either directly or indirectly, from claims 21 and 33 and are patentable for the same reasons.

The Examiner has the burden of establishing a *prima facie* case of obviousness. However, the Examiner has failed to provide a motivation as to why one skilled in the art would be motivated to modify the teachings of Salmimaa with the teachings of Hellebust. The Examiner's statements of motivation seem to simply parrot the claim language and provide nothing from within the cited references that show why one skilled in the art would be motivated to modify the teachings of Salmimaa with the teachings of Hellebust. As such, the Examiner has failed to provide a *prima facie* case of obviousness and the claims are patentable over Salmimaa and/or Hellebust.



## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	3566597
<b>Application Number:</b>	10784781
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	2200
<b>Title of Invention:</b>	Previewing a new event on a small screen device
<b>First Named Inventor/Applicant Name:</b>	Gerhard D. Klassen
<b>Customer Number:</b>	20988
<b>Filer:</b>	Michael W. Van Eesbeek/Lioba Reeves-Bet
<b>Filer Authorized By:</b>	Michael W. Van Eesbeek
<b>Attorney Docket Number:</b>	16813-1US
<b>Receipt Date:</b>	03-JUL-2008
<b>Filing Date:</b>	24-FEB-2004
<b>Time Stamp:</b>	15:48:24
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	no
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### File Listing:

Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment - After Non-Final Rejection	Response-to-Office-Action.pdf	104998 <small>d7a7ad9908a70ba18c72720560afc652e581111</small>	no	8

### Warnings:

### Information:

Total Files Size (in bytes):

104998

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**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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<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875				Application or Docket Number <b>10/784,781</b>		Filing Date <b>02/24/2004</b>		<input type="checkbox"/> To be Mailed					
<b>APPLICATION AS FILED – PART I</b>													
(Column 1)			(Column 2)			SMALL ENTITY <input type="checkbox"/>		OR		OTHER THAN SMALL ENTITY			
FOR		NUMBER FILED	NUMBER EXTRA		RATE (\$)	FEE (\$)	OR		RATE (\$)	FEE (\$)			
<input type="checkbox"/> BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>		N/A	N/A		N/A				N/A				
<input type="checkbox"/> SEARCH FEE <small>(37 CFR 1.16(k), (l), or (m))</small>		N/A	N/A		N/A		N/A						
<input type="checkbox"/> EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>		N/A	N/A		N/A		N/A						
TOTAL CLAIMS <small>(37 CFR 1.16(i))</small>		minus 20 =	*		X \$ =		OR	X \$ =					
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>		minus 3 =	*		X \$ =		OR	X \$ =					
<input type="checkbox"/> APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>		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).											
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT <small>(37 CFR 1.16(j))</small>													
* If the difference in column 1 is less than zero, enter "0" in column 2.													
<b>APPLICATION AS AMENDED – PART II</b>													
(Column 1)			(Column 2)			SMALL ENTITY		OR		OTHER THAN SMALL ENTITY			
AMENDMENT	<b>01/28/2008</b>		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR		RATE (\$)	ADDITIONAL FEE (\$)	
	Total <small>(37 CFR 1.16(o))</small>	* 21	Minus	** 21	=	0	X \$ =				OR	X \$50=	0
	Independent <small>(37 CFR 1.16(h))</small>	* 2	Minus	***3	=	0	X \$ =		OR	X \$210=	0		
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>												
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>												
							TOTAL ADD'L FEE		OR		TOTAL ADD'L FEE	0	
(Column 1)			(Column 2)			(Column 3)		SMALL ENTITY		OR		OTHER THAN SMALL ENTITY	
AMENDMENT	<b>07/03/2008</b>		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR		RATE (\$)	ADDITIONAL FEE (\$)	
	Total <small>(37 CFR 1.16(o))</small>	* 21	Minus	** 21	=	0	X \$ =				OR	X \$50 =	0
	Independent <small>(37 CFR 1.16(h))</small>	* 2	Minus	*** 3	=	0	X \$ =		OR	X \$210 =	0		
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>												
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>												
							TOTAL ADD'L FEE		OR		TOTAL ADD'L FEE	0	
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		10784781	
	Filing Date		2004-02-24	
	First Named Inventor	Cerhard D. Klassen		
	Art Unit	2179		
	Examiner Name	John M. Heffington		
	Attorney Docket Number	16813-1US		

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	1	20060020904	US	2006-01-26	AALTONEN, Antti et al.	
	2	20050120306	US	2005-06-02	KLASSEN, Gerhard D. et al.	
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	1	JP2003271277	JP		2003-09-26	AKITANE, Tsuchiya		<input type="checkbox"/>

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	Filing Date	2004-02-24
	First Named Inventor	Cerhard D. Klassen
	Art Unit	2179
	Examiner Name	John M. Heffington
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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number	10784781
	Filing Date	2004-02-24
	First Named Inventor	Cerhard D. Klassen
	Art Unit	2179
	Examiner Name	John M. Heffington
	Attorney Docket Number	16813-1US

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See attached certification statement.

Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

None

**SIGNATURE**

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

Signature	/mve/	Date (YYYY-MM-DD)	2008-08-13
Name/Print	Michael Van Eesbeek	Registration Number	61,951

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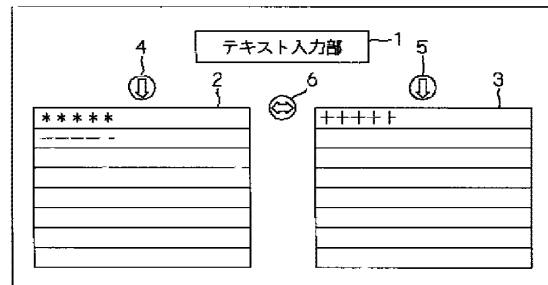
Fターム(参考) 5E501 AA02 AB19 BA05 CA03 CB02  
CB09 EA10 FA03 FA13 FA43

(54) 【発明の名称】 情報処理装置及び情報入力方法

(57) 【要約】

【課題】 情報の入力対象が複数設定されている場合に、円滑に連続して入力操作を行う。

【解決手段】 表示画面上に、テキスト入力領域1と、第1及び第2のチャット内容表示領域2、3と、これら第1及び第2のチャット内容表示領域2、3のいずれに対してテキストを入力するかを選択するための第1乃至第3の入力先選択ボタン4、5、6を表示する。テキスト入力領域1にテキストが入力された状態の下で各入力先選択ボタンが選択された場合には、選択された入力先選択ボタンに対応したチャット内容表示領域にテキストの入力(書き込む)を行う。テキスト入力領域1にテキストが入力されていない状態の下で各入力先選択ボタンが選択された場合には、当該入力先選択ボタンを選択継続状態とする。



【特許請求の範囲】

【請求項1】 ユーザによりボタン選択操作及び情報入力操作が行われる操作手段と、

上記操作手段により入力された情報を一時記憶する一時記憶領域と、上記操作手段により入力された情報の格納対象となる複数の情報記憶領域とが設定された記憶手段と、

上記複数の情報記憶領域にそれぞれ対応した複数の入力先選択ボタンを表示装置の表示画面に表示する表示制御手段と、

上記一時記憶領域に対して情報が入力された状態の下で上記入力先選択ボタンが選択された場合に、当該入力先選択ボタンに対応した情報記憶領域に対して当該情報を格納した後に上記一時記憶領域の記憶内容を初期化するとともに、上記一時記憶領域に対して情報が入力されていない状態の下で上記入力先選択ボタンが選択された場合に、当該入力先選択ボタンを選択継続状態として、これ以降入力された情報を当該入力先選択ボタンに対応した情報記憶領域に対して格納する制御手段とを備えることを特徴とする情報処理装置。

【請求項2】 上記制御手段は、上記一時記憶領域に対して情報が入力されていない状態の下で、選択継続状態とされた入力先選択ボタンが選択された場合に、当該入力先選択ボタンの選択継続状態を解除することを特徴とする請求項1記載の情報処理装置。

【請求項3】 上記制御手段は、上記一時記憶領域に対して情報が入力されておらず、且つ選択継続状態とされた入力先選択ボタンが存在する状態の下で、他の入力先選択ボタンが選択された場合に、選択継続状態とされた入力先選択ボタンの選択継続状態を解除し、選択された入力先選択ボタンを選択継続状態とすることを特徴とする請求項1記載の情報処理装置。

【請求項4】 上記制御手段は、上記一時記憶領域に対して情報が入力されており、且つ選択継続状態とされた入力先選択ボタンが存在する状態の下で、他の入力先選択ボタンが選択された場合に、選択された入力先選択ボタンに対応した情報記憶領域に対して当該情報を格納した後に上記一時記憶領域の記憶内容を初期化し、元の入力先選択ボタンの選択継続状態を維持することを特徴とする請求項1記載の情報処理装置。

【請求項5】 上記制御手段は、上記一時記憶領域に対して情報が入力されており、且つ選択継続状態とされた入力先選択ボタンが存在する状態の下で、他の入力先選択ボタンが選択された場合に、選択された入力先選択ボタンに対応した情報記憶領域に対して当該情報を格納した後に上記一時記憶領域の記憶内容を初期化し、元の入力先選択ボタンの選択継続状態を解除して、選択された入力先選択ボタンを選択継続状態とすることを特徴とする請求項1記載の情報処理装置。

【請求項6】 上記表示制御手段は、上記一時記憶領域

に対して入力された情報の内容を表示する情報入力領域を表示装置の表示画面に表示することを特徴とする請求項1記載の情報処理装置。

【請求項7】 上記表示制御手段は、上記複数の情報記憶領域に格納された情報の内容をそれぞれ表示する複数の情報表示領域を表示装置の表示画面に表示することを特徴とする請求項1記載の情報処理装置。

【請求項8】 上記表示制御手段は、上記入力先選択ボタンと同等の機能を有し、上記複数の情報記憶領域のうちから選択された少なくとも2つの情報記憶領域に対して一度に情報を格納するための複数の入力先選択ボタンを表示装置の表示画面に表示することを特徴とする請求項1記載の情報処理装置。

【請求項9】 情報処理装置を用いて情報を入力するに際して、

ユーザにより入力された情報を一時記憶する一時記憶領域と、ユーザにより入力された情報の格納対象となる複数の情報記憶領域とを設定する記憶領域設定ステップと、

上記複数の情報記憶領域にそれぞれ対応した複数の入力先選択ボタンを表示装置の表示画面に表示するボタン表示ステップと、

上記一時記憶領域に対して情報が入力された状態の下で上記入力先選択ボタンが選択された場合に、当該入力先選択ボタンに対応した情報記憶領域に対して当該情報を格納した後に上記一時記憶領域の記憶内容を初期化する第1の情報格納ステップと、

上記一時記憶領域に対して情報が入力されていない状態の下で上記入力先選択ボタンが選択された場合に、当該入力先選択ボタンを選択継続状態として、これ以降入力された情報を当該入力先選択ボタンに対応した情報記憶領域に対して格納する第2の情報格納ステップとを有することを特徴とする情報入力方法。

【請求項10】 上記一時記憶領域に対して情報が入力されていない状態の下で、選択継続状態とされた入力先選択ボタンが選択された場合に、当該入力先選択ボタンの選択継続状態を解除する選択状態解除ステップをさらに有することを特徴とする請求項9記載の情報入力方法。

【請求項11】 上記一時記憶領域に対して情報が入力されておらず、且つ選択継続状態とされた入力先選択ボタンが存在する状態の下で、他の入力先選択ボタンが選択された場合に、選択継続状態とされた入力先選択ボタンの選択継続状態を解除し、選択された入力先選択ボタンを選択継続状態とする選択ボタン切替ステップをさらに有することを特徴とする請求項9記載の情報入力方法。

【請求項12】 上記一時記憶領域に対して情報が入力されており、且つ選択継続状態とされた入力先選択ボタンが存在する状態の下で、他の入力先選択ボタンが選択

された場合に、選択された入力先選択ボタンに対応した情報記憶領域に対して当該情報を格納した後に上記一時記憶領域の記憶内容を初期化し、元の入力先選択ボタンの選択継続状態を維持する第3の情報格納ステップをさらに有することを特徴とする請求項9記載の情報入力方法。

【請求項13】 上記一時記憶領域に対して情報が入力されており、且つ選択継続状態とされた入力先選択ボタンが存在する状態の下で、他の入力先選択ボタンが選択された場合に、選択された入力先選択ボタンに対応した情報記憶領域に対して当該情報を格納した後に上記一時記憶領域の記憶内容を初期化し、元の入力先選択ボタンの選択継続状態を解除して、選択された入力先選択ボタンを選択継続状態とする第4の情報格納ステップをさらに有することを特徴とする請求項9記載の情報入力方法。

【請求項14】 上記一時記憶領域に対して入力された情報の内容を表示する情報入力領域を表示装置の表示画面に表示する入力領域表示ステップをさらに有することを特徴とする請求項9記載の情報入力方法。

【請求項15】 上記複数の情報記憶領域に格納された情報の内容をそれぞれ表示する複数の情報表示領域を表示装置の表示画面に表示する表示領域表示ステップをさらに有することを特徴とする請求項9記載の情報入力方法。

【請求項16】 上記ボタン表示ステップにおいては、上記入力先選択ボタンと同等の機能を有し、上記複数の情報記憶領域のうちから選択された少なくとも2つの情報記憶領域に対して一度に情報を格納するための複数入力先選択ボタンをさらに表示することを特徴とする請求項9記載の情報入力方法。

【請求項17】 情報処理装置を用いて情報を入力するための情報入力プログラムにおいて、上記情報処理装置に対して、ユーザにより入力された情報を一時記憶する一時記憶領域と、ユーザにより入力された情報の格納対象となる複数の情報記憶領域とを設定する記憶領域設定処理と、上記複数の情報記憶領域にそれぞれ対応した複数の入力先選択ボタンを表示装置の表示画面に表示するボタン表示処理と、上記一時記憶領域に対して情報が入力された状態の下で上記入力先選択ボタンが選択された場合に、当該入力先選択ボタンに対応した情報記憶領域に対して当該情報を格納した後に上記一時記憶領域の記憶内容を初期化する第1の情報格納処理と、上記一時記憶領域に対して情報が入力されていない状態の下で上記入力先選択ボタンが選択された場合に、当該入力先選択ボタンを選択継続状態として、これ以降入力された情報を当該入力先選択ボタンに対応した情報記憶領域に対して格納する第2の情報格納処理とをそれぞれ実行さ

せることを特徴とする情報入力プログラム。

【請求項18】 情報処理装置を用いて情報を入力するための情報入力プログラムが記録された記録媒体において、

上記情報処理装置に対して、ユーザにより入力された情報を一時記憶する一時記憶領域と、ユーザにより入力された情報の格納対象となる複数の情報記憶領域とを設定する記憶領域設定処理と、上記複数の情報記憶領域にそれぞれ対応した複数の入力先選択ボタンを表示装置の表示画面に表示するボタン表示処理と、

上記一時記憶領域に対して情報が入力された状態の下で上記入力先選択ボタンが選択された場合に、当該入力先選択ボタンに対応した情報記憶領域に対して当該情報を格納した後に上記一時記憶領域の記憶内容を初期化する第1の情報格納処理と、

上記一時記憶領域に対して情報が入力されていない状態の下で上記入力先選択ボタンが選択された場合に、当該入力先選択ボタンを選択継続状態として、これ以降入力された情報を当該入力先選択ボタンに対応した情報記憶領域に対して格納する第2の情報格納処理とをそれぞれ実行させることを特徴とする情報入力プログラムが記録された記録媒体。

【発明の詳細な説明】

【0001】

【発明の属する技術分野】本発明は、情報の格納対象とされた複数の情報記憶領域に対して情報を円滑に入力するための情報処理装置、情報入力方法、情報入力プログラム、並びに情報入力プログラムが記録された記録媒体に関する。

【0002】

【従来の技術】従来から、例えばコンピュータ装置、PDA (Personal Digital Assistant) 機器、或いは携帯型電話機などの情報処理装置においては、様々な場面でテキスト(文字列)を入力する操作が要求されている。

【0003】また、近年では、多数の情報処理装置が接続されたコンピュータネットワークとして、いわゆるインターネット(The Internet)が広く普及しており、相互に接続された情報処理装置の間で様々な情報を自在に送受信する環境が整備されつつある。そして、このインターネットを利用してユーザ同士の間で意思や感情の伝達を行うシステムとして、いわゆる掲示板システムやチャットシステムなどが存在する。このような掲示板システムやチャットシステムを利用するに際しても、テキストの入力操作を行う機会が多い。

【0004】従来から、情報処理装置を用いてテキストの入力操作を行うに際しては、矩形の入力領域が表示画面に表示され、この入力領域を選択した状態で、例えばキーボードやスタイラスペン等を用いてテキストを入力した後に、例えばキーボードの確定キーを押下すること

によって入力したテキストの確定操作が行われる。また、例えば、入力領域に対応付けされた確定ボタンを表示画面に表示し、入力領域内にテキストが入力された状態で確定ボタンを選択することによって確定操作が行われる入力方式も広く採用されている。

【0005】

【発明が解決しようとする課題】ところで、従来から用いられているテキストの入力方式においては、複数の入力領域が存在する場合に、入力対象とする入力領域をテキストを入力する度に選択操作することが必要とされる。この選択操作としては、例えば、キーボードの矢印キーやタブ (TAB) キー等を用いて入力対象とする入力領域を順次ハイライト表示させたり、或いは、マウス装置を用いてマウスカーソルを入力対象とする入力領域に移動させた後にクリック操作すること等によって行われる。したがって、複数の入力領域に対してテキストの入力操作を行うに際しては、甚だ煩雑な操作が要求されるという問題があった。

【0006】また、例えば、インターネットを利用した掲示板システムやチャットシステムにおいては、一般に、書き込み内容や発言内容となるテキストを入力するテキスト入力領域と、書き込み内容や発言内容が表示されるテキスト表示領域と、テキスト入力領域に入力されたテキストを確定して実際の書き込み内容や発言内容として反映させるための確定ボタン (送信ボタン) とがひと組に構成されている。

【0007】したがって、例えば書き込み対象 (或いは発言対象) としてのテキスト表示領域が複数設定されている場合には、各テキスト表示領域に対応して、それぞれテキスト入力領域と確定ボタンとを用意する必要があった。このため、同様な機能を有するテキスト入力領域や確定ボタンが画面上に複数表示されることとなり、表示画面の美観を損ねてユーザに煩雑な印象を与えてしまうといった問題が生じる。また、テキストを入力する毎に確定ボタンを選択する必要が生じ、例えばキーボードとマウス装置とを持ち替える頻度が高くなるなどして、操作性が悪い。

【0008】そこで、本発明は、上述した従来の実情に鑑みてなされたものであり、入力された情報の格納対象が複数設定されている場合であっても、自然な操作で円滑に且つ連続的に情報の入力操作を行なうことが可能な情報処理装置、情報入力方法、情報入力プログラム、並びに情報入力プログラムが記録された記録媒体を提供することを目的とする。

【0009】

【課題を解決するための手段】本発明の請求項1に係る情報処理装置は、ユーザによりボタン選択操作及び情報入力操作が行われる操作手段と、上記操作手段により入力された情報を一時記憶する一時記憶領域と、上記操作手段により入力された情報の格納対象となる複数の情報

記憶領域とが設定された記憶手段と、上記複数の情報記憶領域にそれぞれ対応した複数の入力先選択ボタンを表示装置の表示画面に表示する表示制御手段と、上記一時記憶領域に対して情報が入力された状態の下で上記入力先選択ボタンが選択された場合に、当該入力先選択ボタンに対応した情報記憶領域に対して当該情報を格納した後に上記一時記憶領域の記憶内容を初期化するとともに、上記一時記憶領域に対して情報が入力されていない状態の下で上記入力先選択ボタンが選択された場合に、当該入力先選択ボタンを選択継続状態として、これ以降入力された情報を当該入力先選択ボタンに対応した情報記憶領域に対して格納する制御手段とを備える。

【0010】また、本発明の請求項9に係る情報入力方法は、情報処理装置を用いて情報を入力するに際して、ユーザにより入力された情報を一時記憶する一時記憶領域と、ユーザにより入力された情報の格納対象となる複数の情報記憶領域とを設定する記憶領域設定ステップと、上記複数の情報記憶領域にそれぞれ対応した複数の入力先選択ボタンを表示装置の表示画面に表示するボタン表示ステップと、上記一時記憶領域に対して情報が入力された状態の下で上記入力先選択ボタンが選択された場合に、当該入力先選択ボタンに対応した情報記憶領域に対して当該情報を格納した後に上記一時記憶領域の記憶内容を初期化する第1の情報格納ステップと、上記一時記憶領域に対して情報が入力されていない状態の下で上記入力先選択ボタンが選択された場合に、当該入力先選択ボタンを選択継続状態として、これ以降入力された情報を当該入力先選択ボタンに対応した情報記憶領域に対して格納する第2の情報格納ステップとを有する。

【0011】さらに、本発明の請求項17に係る情報入力プログラムは、情報処理装置を用いて情報を入力するための情報入力プログラムにおいて、上記情報処理装置に対して、ユーザにより入力された情報を一時記憶する一時記憶領域と、ユーザにより入力された情報の格納対象となる複数の情報記憶領域とを設定する記憶領域設定処理と、上記複数の情報記憶領域にそれぞれ対応した複数の入力先選択ボタンを表示装置の表示画面に表示するボタン表示処理と、上記一時記憶領域に対して情報が入力された状態の下で上記入力先選択ボタンが選択された場合に、当該入力先選択ボタンに対応した情報記憶領域に対して当該情報を格納した後に上記一時記憶領域の記憶内容を初期化する第1の情報格納処理と、上記一時記憶領域に対して情報が入力されていない状態の下で上記入力先選択ボタンが選択された場合に、当該入力先選択ボタンを選択継続状態として、これ以降入力された情報を当該入力先選択ボタンに対応した情報記憶領域に対して格納する第2の情報格納処理とをを実行させる。

【0012】さらにまた、本発明の請求項18に係る情報入力プログラムが記録された記録媒体は、情報処理装置を用いて情報を入力するための情報入力プログラムが

記録された記録媒体において、上記情報処理装置に対して、ユーザにより入力された情報を一時記憶する一時記憶領域と、ユーザにより入力された情報の格納対象となる複数の情報記憶領域とを設定する記憶領域設定処理と、上記複数の情報記憶領域にそれぞれ対応した複数の入力先選択ボタンを表示装置の表示画面に表示するボタン表示処理と、上記一時記憶領域に対して情報が入力された状態の下で上記入力先選択ボタンが選択された場合に、当該入力先選択ボタンに対応した情報記憶領域に対して当該情報を格納した後に上記一時記憶領域の記憶内容を初期化する第1の情報格納処理と、上記一時記憶領域に対して情報が入力されていない状態の下で上記入力先選択ボタンが選択された場合に、当該入力先選択ボタンを選択継続状態として、これ以降入力された情報を当該入力先選択ボタンに対応した情報記憶領域に対して格納する第2の情報格納処理とをを実行させることを特徴とする情報入力プログラムが記録されている。

【0013】以上のように構成された本発明によれば、一時記憶領域に対して情報が入力された下でいずれかの入力先選択ボタンを選択することによって、選択された入力先選択ボタンに対応した情報記憶領域に当該情報が格納される。また、一時記憶領域に対して情報が入力されていない状態の下で入力先選択ボタンが選択された場合には、この入力先選択ボタンが選択継続状態となり、これ以降入力された情報が当該入力先選択ボタンに対応した情報記憶領域に対して格納されることとなる。

【0014】このため、入力先選択ボタンを選択継続状態とすることによって、以降のボタン選択操作を行う必要なく、所定の一時記憶領域に対して連続して情報を入力することができる。また、一時記憶領域に対して情報を入力した状態の下では、入力先選択ボタンを選択するという極めて簡便な操作のみで、任意の情報記録領域に対して情報を格納することができる。

【0015】なお、選択継続状態を解除するに際しては、上記一時記憶領域に対して情報が入力されていない状態の下で、選択継続状態とされた入力先選択ボタンが選択された場合に行うとすればよい。これにより、入力先選択ボタンの選択継続状態のオン/オフ切替を、自然な操作感覚で実現することができる。

【0016】また、上記一時記憶領域に対して情報が入力されておらず、且つ選択継続状態とされた入力先選択ボタンが存在する状態の下で、他の入力先選択ボタンが選択された場合には、選択継続状態とされた入力先選択ボタンの選択継続状態を解除し、選択された入力先選択ボタンを選択継続状態とするとともに、選択された入力先選択ボタンに対応した情報記憶領域に対して当該情報を格納した後に上記一時記憶領域の記憶内容を初期化し、元の入力先選択ボタンの選択継続状態を維持するとともによい。すなわち、この場合には、選択された入力先選択ボタンに対応した情報記憶領域を情報の入力

対象として一時的に切り替えてもよいし、選択された入力先選択ボタンを選択継続状態として、当該入力先選択ボタンに対応した情報記憶領域を新たな入力対象として切り替えるとしてもよい。

【0017】さらに、上記一時記憶領域に対して入力された情報の内容を表示する情報入力領域を表示装置の表示画面に表示するとしてもよい。この場合であっても、情報を入力するという機能を有する情報入力領域を唯一用意することで複数の情報記録領域に対する入力操作を行うことができる。このため、入力領域と表示領域と確定ボタンとが一組とされた従来の入力方式を用いて複数の入力対象に対して情報の入力操作を行う場合と比較して、画面上の構成物を減らすことができる。したがって、表示画面の美観が向上し、ユーザに対して煩雑な印象を与えることがない。

【0018】また、上記複数の情報記憶領域に格納された情報の内容をそれぞれ表示する複数の情報表示領域を表示装置の表示画面に表示するとしてもよい。これにより、各情報記憶領域にどのような情報が入力されたかをユーザに対して明示的に逐次示すことができる。これにより、どの情報記憶領域に対して情報を入力するかというユーザの選択を促すことができる。

【0019】

【発明の実施の形態】以下、本発明の実施の形態について、図面を参照しながら詳細に説明する。

【0020】(1)本発明の基本的な構成

まず、本発明の最も基本的な構成について、図1に示す画面例を参照しながら説明する。図1は、コンピュータネットワークを介して複数のコンピュータ装置が接続されたシステムにおいて、各コンピュータ装置のユーザ（利用者）間でテキスト（文字列）を授受することにより意思や感情の伝達（コミュニケーション）を行うチャットシステムに本発明を適用した場合に、各コンピュータ装置の表示画面上に表示される内容、すなわちグラフィカル・ユーザ・インターフェース（GUI：Graphical User Interface）の一例を示すものである。

【0021】図1に示す例においては、表示画面内の上部に矩形のテキスト入力領域1が設定され、このテキスト入力領域1の下部に第1のチャット内容表示領域2と第2のチャット内容表示領域3とが左右に並んで設定されている。また、第1のチャット内容表示領域2の上部に、この第1のチャット内容表示領域2に対してテキストを入力することを選択するための第1の入力先選択ボタン4が表示され、第2のチャット内容表示領域3の上部に、この第2のチャット内容表示領域3に対してテキストを入力することを選択するための第2の入力先選択ボタン5が表示されている。さらに、第1の入力先選択ボタン4と第2の入力先選択ボタン5との中間位置に、第1のチャット内容表示領域2及び第2のチャット内容表示領域3との双方にテキストを入力することを選択す

るための第3の入力先選択ボタン6が表示されている。  
【0022】テキスト入力領域1は、コンピュータ装置に備えられたキーボード等の入力デバイスを用いて、ユーザにより入力されたテキストが表示される。ここで、ユーザにより入力されたテキストは、コンピュータ装置に備えられたRAM (Random Access Memory) 等の記憶デバイスに一時記憶される。コンピュータ装置は、テキスト入力領域1に対して入力されたテキストを一時記憶する記憶領域(入力バッファ)が予め記憶デバイス内に確保されており、この入力バッファに蓄積された入力内容をテキスト入力領域1に表示する。すなわち、ユーザの観点では、キーボード等により入力したテキストがテキスト入力領域1に表示されることとなるが、実際には、入力されたテキストは入力バッファに一時記憶され、この入力バッファの記憶内容がテキスト入力領域1に表示されていることとなる。

【0023】本例においては、入力内容を確認しながらユーザがテキストの入力操作を行うことを可能とする目的でテキスト入力領域1を表示しているが、このテキスト入力領域1は非表示であってもよい。

【0024】第1のチャット内容表示領域2及び第2のチャット内容表示領域3は、チャットシステムに接続されたコンピュータ装置の間で送受信されたテキスト、すなわち各コンピュータ装置のユーザが入力したテキスト(チャット内容)が表示される領域である。ここで、各ユーザ間で送受信されるチャット内容は、コンピュータ装置に備えられたRAM (Random Access Memory) やハードディスク装置等の記憶デバイスに一時記憶される。コンピュータ装置は、第1のチャット内容表示領域2及び第2のチャット内容表示領域3のそれぞれに対応して、チャット内容を記憶するテキスト記憶領域が予め記憶デバイス内に所定のアドレス空間として或いはファイルとして確保されており、これらテキスト記憶領域に蓄積された内容をそれぞれ第1のチャット内容表示領域2及び第2のチャット内容表示領域3に表示する。

【0025】本例においては、チャット内容を確認しながらチャットに参加し、いずれのテキスト記憶領域に対してテキストを入力するかというユーザによる選択を容易とする目的で、これらテキスト記憶領域の内容をそれぞれ示す第1のチャット内容表示領域2及び第2のチャット内容表示領域3を表示しているが、これらは非表示とされていてもよい。

【0026】第1の入力先選択ボタン4及び第2の入力先選択ボタン5は、それぞれ、テキスト入力領域1に入力されたテキストを、第1のチャット内容表示領域2及び第2のチャット内容表示領域3に書き込む場合に選択されるボタンである。また、第3の入力先選択ボタン6は、テキスト入力領域1に入力されたテキストを、第1のチャット内容表示領域2及び第2のチャット内容表示領域3の双方に対して同時に書き込む場合に選択される

ボタンである。すなわち、第1乃至第3の入力先選択ボタン5は、テキスト入力領域1に入力されたテキストを、第1のチャット内容表示領域2と第2のチャット内容表示領域3とのいずれに入力する(書き込む)かを選択するボタン、入力対象を選択するためのボタンとして構成されている。

【0027】これら各入力先選択ボタンを選択するに際しては、例えば、ユーザがコンピュータ装置に接続されたマウス装置を操作することによって、画面上に表示されるマウスカーソルが各入力先選択ボタン上に移動操作され、マウス装置をクリック操作することなどによって行われる。

【0028】ここで、第1乃至第3の入力先選択ボタン4, 5, 6の各入力先選択ボタンは、図2に示すように、ユーザによる操作に応じてそれぞれ3つの状態を遷移する。すなわち各入力先選択ボタンは、ユーザによって選択操作されていない状態である未選択状態N1と、ユーザによって選択操作されたときの状態である選択状態N2と、選択が継続された状態である選択継続状態N3との3つの状態を遷移する。以下では、各入力先選択ボタンの状態遷移について説明する。

【0029】第1乃至第3の入力先選択ボタン4, 5, 6の各入力先選択ボタンは、それぞれ初期状態として未選択状態N1が設定されている。この未選択状態N1において、テキスト入力領域1内にテキストが入力されている場合、すなわち入力バッファにテキストが一時記憶されている場合に、ユーザによって選択操作されると、選択された入力先選択ボタンは図2中矢印A1で示すように状態が遷移して選択状態N2となる。

【0030】これにより、テキスト入力領域1に入力されたテキストが選択されたボタンに対応したチャット内容表示領域に対して書き込まれ、テキスト入力領域1が初期化されて内容が空となる。すなわち、このとき、入力バッファに蓄積されたテキストが入力対象として選択されたチャット内容表示領域に対応したテキスト記憶領域に転写されるとともに、入力バッファがクリアされる。

【0031】上述のようにして、テキスト入力領域1に入力されたテキストが所定のチャット内容表示領域に書き込まれた後に、選択状態N2とされた入力先選択ボタンは、図中矢印A2で示すように状態が遷移して未選択状態N1に戻る。

【0032】また、第1乃至第3の入力先選択ボタン4, 5, 6の各入力先選択ボタンは、未選択状態N1において、テキスト入力領域1内にテキストが入力されていない場合にユーザによって選択操作されると、選択された入力先選択ボタンは図中矢印A3で示すように状態が遷移して選択継続状態N3となる。第1乃至第3の入力先選択ボタン4, 5, 6のうちいずれかの入力先選択ボタンが選択継続状態N3に遷移すると、この選択継続



状態N3とされた入力先選択ボタンに対応したチャット内容表示領域が、入力対象として継続的に選択された状態となり、テキスト入力領域1に対して入力されたテキストが逐次、このチャット内容表示領域に対して書き込まれることとなる。これにより、入力先選択ボタンの選択操作を行うことなく、入力対象として選択されたチャット内容表示領域に対して連続してテキストを書き込むことが可能となる。

【0033】また、第1乃至第3の入力先選択ボタン4、5、6のうちいずれかの入力先選択ボタンが選択継続状態N3とされているときに、テキスト入力領域1内にテキストが入力されておらず、且つ他の入力先選択ボタンが選択された場合、又は、選択継続状態N3とされた入力先選択ボタンがユーザにより選択された場合には、当該入力先選択ボタンは図中矢印A4で示すように状態が遷移して未選択状態N1に戻る。

【0034】なお、第1乃至第3の入力先選択ボタン4、5、6は、上述のように遷移する3つの状態に応じて、各状態毎に特徴的な状態で表示されることが望ましい。具体的には例えば、各状態に応じて、色や絵柄を変化させたり、ハイライト表示したり、アニメーション表示の内容を変化させるなどすることが望ましい。これにより、ユーザに対して明示的に現在の状態を示すことができ、ユーザによる誤った操作を防止することができる。

【0035】つぎに、上述のようにして遷移する第1乃至第3の入力先選択ボタン4、5、6の状態に着目して、本例に係るチャットシステムでテキストを入力する場合のコンピュータ装置の動作を、図3及び図4に示すフローチャートを参照しながら説明する。

【0036】なお、第1乃至第3の入力先選択ボタン4、5、6は、いずれもテキストの入力先を選択するという同等の機能を有しており、いずれも同様にしてユーザによる選択操作に応じて状態が遷移することから、以下の説明においては、特定の入力先選択ボタンを想定せずに、単に「入力先選択ボタン」と称して説明することとする。本例に係るチャットシステムにおいては、第1乃至第3の入力先選択ボタン4、5、6のそれぞれに対して以下で説明する処理が行われる。

【0037】また、以下で説明する処理は、チャットシステムを構成するコンピュータ装置上で実行されるソフトウェア・プログラムに記述された処理内容に従って、コンピュータ装置を構成するCPU (Central Processing Unit) が、RAM、キーボード、或いはマウス装置に対する各種情報の入出力を行うことにより実現されるものとする。

【0038】入力先選択ボタンは、その初期状態として未選択状態N1とされている。また、初期状態において、入力バッファにはテキストが入力されていないものとする。このとき、コンピュータ装置は、例えば各部の

動作を制御する制御部として備えられたCPU等によって、入力先選択ボタンがユーザにより選択されたか否かを判定する(ステップB1)。この判定の結果、選択されていない場合には処理をステップB2に進め、選択されている場合には、選択された入力先選択ボタンを選択継続状態N3に遷移させて、処理をステップB6に進める。

【0039】ステップB2において、コンピュータ装置は、ユーザがキーボード等を操作することにより入力されたテキストを入力バッファに一時記憶するとともに、この入力バッファに記憶された内容をテキスト入力領域1に表示する。

【0040】次にステップB3において、コンピュータ装置は、ユーザによって例えばマウス装置を用いた選択操作等がなされ、入力先選択ボタンが選択されたか否かを判定する。この判定の結果、選択されている場合には処理をステップB4に進め、選択されていない場合には処理をステップB2に戻してテキストの入力処理を継続する。

【0041】ステップB4において、コンピュータ装置は、ユーザにより入力されたテキストが入力バッファ内に存在するか否かを判定する。この判定の結果、入力バッファが空である場合、すなわちユーザによってテキストが何も入力されていない場合には、選択された入力先選択ボタンを選択継続状態N3に遷移させて処理をステップB6に進め、入力バッファが空ではない場合には処理をステップB5に進める。

【0042】ステップB5において、コンピュータ装置は、入力バッファ内に記憶されたテキストを、選択された入力先選択ボタンに対応したチャット内容表示領域に対して書き込み、入力バッファを初期化して空にする。この後、処理をステップB1に戻して、上述した一連の処理を繰り返す。

【0043】一方、ステップB6においては、入力先選択ボタンが選択継続状態N3とされていることから、この入力先選択ボタンに対応したチャット内容表示領域に対して、テキストの書き込みを連続して行う処理が行われる。このステップB6が開始されると、図4に示すステップB10において、コンピュータ装置は、ユーザがキーボード等を操作することにより入力されたテキストを入力バッファに一時記憶するとともに、この入力バッファに記憶された内容をテキスト入力領域1に表示する。

【0044】次に、ステップB11において、コンピュータ装置は、ユーザにより例えばキーボードの「リターンキー」が入力されるなどして、入力内容の確定操作が行われたか否かを判定する。この判定の結果、確定操作が行われている場合には処理をステップB12に進め、確定操作が行われていない場合には処理をステップB10に戻してテキストの入力を継続する。

【0045】ステップB12において、コンピュータ装置は、入力バッファ内に記憶されたテキストを、選択継続状態N3とされた入力先選択ボタンに対応したチャット内容表示領域に対して書き込み、入力バッファを初期化して空にする。その後、処理をステップB10に戻して、上述した一連のステップB6における処理を繰り返す。

【0046】上述した一連のステップB6における処理は、当該入力先選択ボタンの選択継続状態N3が解除されて、未選択状態N1に戻るまで繰り返される。

【0047】本例に係るチャットシステムにおいては、テキスト入力領域1にテキストを入力した状態で第1乃至第3の入力選択ボタン4、5、6のいずれかを選択するという極めて簡便な操作により、複数設定されたチャット内容表示領域のうちから任意のチャット内容表示領域を入力対象として選択し、このチャット内容表示領域に対してテキストを入力することができる。したがって、チャット内容表示領域が複数設定されている場合であっても、ユーザによってテキストの入力操作が行われるテキスト入力領域1は1つだけで十分となり、入力領域と表示領域と確定ボタンとが一組とされた従来の入力方式を用いる場合と比較して、画面上の構成物を減らすことができる。したがって、表示画面の美観が向上し、ユーザに対して煩雑な印象を与えることがない。

【0048】また、テキスト入力領域1にテキストが入力されていない状態で第1乃至第3の入力選択ボタン4、5、6のいずれかが選択されると、選択された入力選択ボタンが選択継続状態となり、これ以降入力されたテキストが当該入力先選択ボタンに対応したチャット内容表示領域に対して入力されることとなる。したがって、特定のチャット内容表示領域に対して連続して入力（書き込み）を行う場合においても、入力を行う度に入力先選択ボタンを選択操作する必要がない。すなわち、特定のチャット内容表示領域に対する連続した入力操作を極めて円滑に行うことができる。

【0049】ところで、本例に係るチャットシステムにおいて、上述のようにして第1乃至第3の入力先選択ボタン4、5、6のうちのいずれかが選択継続状態N3とされている状態で、テキスト入力領域1にテキストが入力されていない場合に他の入力先選択ボタンが選択されたときには、選択された入力先選択ボタンを選択継続状態N3とし、それ以前に選択継続状態N3とされていた入力先選択ボタンの選択継続状態N3を解除して未選択状態N1とすることが望ましい。これにより、ユーザは、テキストを連続して入力する入力先（チャット内容表示領域）を1回のボタン選択操作で切り替えることができる。

【0050】また、第1乃至第3の入力先選択ボタン4、5、6のうちのいずれかが選択継続状態N3とされている状態で、テキスト入力領域1にテキストが入力さ

れている場合に他の入力先選択ボタンが選択されたときには、以下で説明する2つの動作のうちのいずれかを処理することが考えられる。

【0051】第1の動作としては、テキスト入力領域1に入力されているテキストを、選択操作された入力先選択ボタンに対応した入力先に入力した後に、テキスト入力領域1を初期化し、それ以前から選択継続状態N3とされている入力先選択ボタンの状態を、選択継続状態N3のまま維持するという動作である。この第1の動作が処理されることにより、ユーザは、特定の入力先に対して連続してテキストの入力を行っている途中に、1回だけ他の入力先に対してテキストの入力を行うという操作を、1回のボタン選択操作のみで実現することができる。

【0052】第2の動作としては、テキスト入力領域1に入力されているテキストを、選択操作された入力先選択ボタンに対応した入力先に入力した後に、テキスト入力領域1を初期化する。そして、それ以前から選択継続状態N3とされていた入力先選択ボタンの状態を未選択状態N1に遷移させるとともに、選択操作された入力先選択ボタンを選択継続状態N3に遷移させるという動作である。すなわち、この第2の動作が処理されることにより、現在テキスト入力領域1に入力されているテキストの選択操作された入力先選択ボタンに対応した入力先に入力するとともに、これ以降、新たに指定された入力先に対して連続してテキストの入力を行うことができるようになる。

【0053】上述した2つの動作は、特に一方が優れているというのではなく、チャットシステムの用途や利用形態に準じていずれかを選択的に採用すればよい。また、ユーザの操作に応じて上述した2つの動作が切り替え可能とされていてもよい。

【0054】なお、上述においては、本発明をチャットシステムに適用した場合について説明したが、本発明は、その趣旨を逸脱しない範囲で、情報処理装置を用いて各種の情報を入力する場合に広く適用することができる。具体的には、例えば、いわゆる掲示板システムにテキストを入力する場合に適用するとしてもよいし、住所録アプリケーションや表計算アプリケーションを用いて各種の情報を入力する場合に適用してもよい。

【0055】また、上述においては、ユーザにより入力されたテキストの入力対象となるチャット内容表示領域が2つ設定された場合を想定して説明したが、本発明は、テキストの入力対象を2つに限定されるものではなく、任意の数だけ情報の入力対象が設定された場合に適用することもできる。

【0056】(2)より具体的な実施の形態  
つぎに、上述した本発明の基本的な構成に基づく、より具体的な本発明の実施の形態について説明する。以下では、コンピュータネットワークに接続された複数の情報

処理装置の間で、画像データ、音声データ、文字データ、及び制御データのうち任意のデータを送受信することによって、各情報処理装置の利用者間で意思や感情の相互伝達（コミュニケーション）を行うコミュニケーションシステムに対して本発明を適用した場合について説明する。

【0057】（2-1）コミュニケーションシステムの基本構成

まず、このようなコミュニケーションを実現する基本的なシステムの構成について概略的に説明する。

【0058】なお、以下では、コンピュータネットワークとして、いわゆるTCP/IP（Transmission Control Protocol / Internet Protocol）プロトコル群を利用して複数の情報処理装置間で相互接続が可能とされたネットワーク形態を想定して説明する。ただし、本発明は、このようなネットワーク形態への適用に限定されるものではなく、複数の情報処理装置間で相互に各種情報の授受を行うコンピュータネットワークを利用する場合に広く適用することが可能である。

【0059】また、以下では、各種情報の授受を行う情報処理装置として、コンシューマ用途のパーソナル・コンピュータ装置（以下、単にコンピュータ装置と称する。）を用いた場合を想定して説明する。ただし、本発明は、このようなコンピュータ装置を用いた場合への適用に限定されるものではなく、例えば、各種のPDA（Personal Digital Assistants）機器、或いは通信機能が搭載された携帯電話などのように各種の情報処理装置を用いた場合に対して広く適用することができる。

【0060】本例で説明するコミュニケーションシステムは、例えば図5に示すように、複数のコンピュータ装置10がインターネット（The Internet）11を介して相互に各種情報の授受が可能な状態で接続されてなる。

【0061】ここで、各コンピュータ装置10は、インターネット11に対して直接接続されていてもよいし、ISP（Internet Service Provider）などを利用して公衆回線網15を介してインターネット11に接続可能な環境とされていてもよい。公衆回線網15としては、例えば、電話回線網15a、ケーブルテレビ網15b又はADSL（Asymmetric Digital Subscriber Line）網15c等を挙げることができる。このとき、コンピュータ装置10は、インターネット11に接続可能な環境であれば、有線接続或いは無線接続の別を問わない。例えば、コンピュータ装置10は、いわゆる簡易型携帯電話（PHS：Personal Handyphone System）等を介して、インターネット11に接続する構成とされていてもよい。

【0062】各コンピュータ装置10は、各々がインターネット11に接続した状態で、TCP/IPプロトコル群を用いてインターネット11上に伝送路を確立し、互いに画像データ、音声データ、文字データ、及び制御

データ等の各種情報を相互に授受することが可能とされている。

【0063】（2-2）ユーザ端末の構成

つぎに以下では、上述したコミュニケーションシステムを構成するコンピュータ装置10の構成について説明する。

【0064】なお、以下では、説明の便宜上、コンピュータ装置10にデジタルビデオカメラが搭載されている場合について説明するものとする。ただし、コンピュータ装置10は、外部機器として構成されたデジタルビデオカメラが有線又は無線により接続されていてもよいし、例えばコンピュータ装置10が接続されたLAN（Local Area Network）等のコンピュータネットワークに対して直接接続可能とされたデジタルビデオカメラを用いて、このデジタルビデオカメラにより撮像或いは録音された画像データや音声データがコンピュータネットワークを介してコンピュータ装置10に取り込まれる構成とされていてもよい。

【0065】コンピュータ装置10は、図6に示すように、各種演算処理を実行するとともに各部を統括して制御するCPU（Central Processing Unit）20と、このCPU20のワークエリアとして機能するRAM（Random Access Memory）21と、CPU20によって実行される各種プログラムを含む情報を格納する読み取り専用のROM（Read Only Memory）22と、CPU20によって実行されるオペレーティング・システム（Operating System）やアプリケーション・プログラム等の各種プログラムが記録され、各種データ等の記録再生が行われるHDD（Hard Disk Drive）23と、各種情報を表示する表示部24と、この表示部24とCPU20との間でのデータの授受を行うための表示用インターフェース25と、ユーザによって各種情報や指示操作を入力するための操作部26と、この操作部26とCPU20との間でのデータの授受を行うための操作用インターフェース27と、上述した公衆回線網15を介してインターネット11に接続された外部装置との間でデータの授受を行うためのネットワークインターフェース28と、被写体を撮影して映像データや音声データを得るデジタルビデオカメラ29と、いわゆるMPEG2（Moving Picture Experts Group phase 2）方式に基づく圧縮符号化及び復号を行うMPEG2コーデック30とを備える。

【0066】コンピュータ装置10は、これらの各部のうち、CPU20、RAM21、ROM22、HDD23、表示用インターフェース25、操作用インターフェース27、ネットワークインターフェース28、デジタルビデオカメラ29、及びMPEG2コーデック30がバス31を介して接続されて構成される。

【0067】なお、コンピュータ装置10におけるデジタルビデオカメラ29は、コンピュータ装置10に搭載されずに、例えば外部機器接続用の所定のインターフェ

ースや、ネットワークインターフェース28などを介してバス31に接続されてもよい。また、コンピュータ装置10は、必要に応じて、例えば着脱自在とされる記録媒体に対する記録再生を行うリムーバブル型の記録再生装置などがHDD23の他に搭載又は接続され、この記録再生装置に対する各種データの記録再生が可能とされていてもよい。

【0068】CPU20は、バス31を介して、RAM21、ROM22、HDD23、表示用インターフェース25、操作用インターフェース27、ネットワークインターフェース28、デジタルビデオカメラ29、及びMPEG2コーデック30と接続されている。CPU20は、各部を統括的に制御するとともに、例えばHDD23等に記録されているオペレーティング・システムや各種アプリケーション・プログラムを実行処理する。特に、CPU20は、アプリケーション・プログラムのひとつとして構成されたコミュニケーションプログラムの実行を処理する。なお、このコミュニケーションプログラムについての詳細は後述する。

【0069】RAM21は、CPU20が各種プログラムを実行する際のワークエリアとして機能し、CPU20の制御のもとに、各種データを一時記憶する。

【0070】ROM22は、コンピュータ装置10の起動に必要となる各種プログラムや設定情報などを格納している。このROM22に格納されている各種プログラムや設定情報は、コンピュータ装置10の起動時に読み出され、CPU20によって利用される。

【0071】HDD23は、オペレーティング・システムやアプリケーション・プログラム等が記録されるとともに、CPU20の制御のもとに各種プログラムやデータ等の記録再生を行う。

【0072】表示部24は、例えばLCD (Liquid Crystal Display) からなり、CPU20の制御のもとに、HDD23に記録されているデータ等の各種情報を表示画面に表示する。特に、表示部24は、CPU20の制御のもとに、後述するコミュニケーションプログラムを実行処理した結果を表示したり、このコミュニケーションプログラムに対して各種の指示操作を行うボタンを表示するためのウィンドウといった、所定のグラフィカル・ユーザ・インターフェースを表示画面に表示する。

【0073】表示用インターフェース25は、CPU20と表示部24との間でのデータの授受を行う。すなわち、表示用インターフェース25は、CPU20からバス31を介して供給された各種情報を表示部24に供給する。

【0074】操作部26は、例えば、キーボード、マウス等のポインティングデバイス、或いはいわゆるジョグダイヤル等回転操作式スイッチなどによるユーザ・インターフェースを用いたユーザによる操作を受け付け、操作内容を示す制御信号を操作用インターフェース27を

介してCPU20に供給する。

【0075】操作用インターフェース27は、CPU20と操作部26との間でのデータの授受を行う。すなわち、操作用インターフェース27は、操作部26から供給された制御信号をバス31を介してCPU20に供給する。

【0076】ネットワークインターフェース28は、CPU20の制御のもとに、外部との通信を行うインターフェースとして機能する。すなわち、ネットワークインターフェース28は、インターネット11に接続された他のコンピュータ装置10との間で各種情報の授受を行うために設けられるものである。

【0077】デジタルビデオカメラ29は、被写体を撮影するための所定の光学系や、CCD (Charge Coupled Devices) 等の光電変換用のデバイス等からなる。デジタルビデオカメラ29により得られた映像データや音声データは、CPU20の制御のもとに、バス31を介してMPEG2コーデック30に供給される。

【0078】MPEG2コーデック30は、バス31を介してデジタルビデオカメラ29から供給された映像データや音声データを、CPU20の制御のもとに、MPEG2方式に基づく圧縮符号化を行う。このとき、MPEG2コーデック30は、CPU20の制御のもとに、映像データや音声データをリアルタイムに圧縮符号化する。また、MPEG2コーデック30は、MPEG2方式に基づいて圧縮符号化されたデータを復号することもできる。

【0079】(2-3) コミュニケーションプログラムの概略

つぎに以下では、上述したコンピュータ装置10により実行されるコミュニケーションプログラムについて説明する。

【0080】コミュニケーションプログラムは、それぞれ個別の機能を実現する複数のモジュールを組み合わせて自在とされた一連のプログラム群によって構成されており、例えばコンピュータ装置10のHDD23に記録されている。コンピュータ装置10は、このコミュニケーションプログラムをCPU20によって実行することにより、他のコンピュータ装置との間で、画像データ、音声データ、或いは文字データ等の各種情報を授受することによって、各コンピュータ装置のユーザ間での意思や感情の相互伝達 (コミュニケーション) を可能とする。なお、コミュニケーションプログラムは、例えばいわゆるコンパクトディスク (Compact Disc) 等の所定の記録媒体やインターネット11等の伝送媒体によっても提供され得るものである。

【0081】コンピュータ装置10で実行されるコミュニケーションプログラムは、他のコンピュータ装置で実行されるコミュニケーションプログラムとの間で、いわゆるサーバ・クライアント方式により通信を行う。すな

わち、相互接続状態が確立された複数のコミュニケーションプログラムにおいては、所定のコミュニケーションプログラムによりサーバとしての機能が実現され、他のコミュニケーションプログラムがクライアントとして動作する。ただし、コミュニケーションプログラムは、コンピュータ装置10において実行処理が開始され、他のコミュニケーションプログラムとの間で相互接続状態が確立されていない時点、すなわち初期起動状態において、いわば仮想セッションモードでの動作となり、サーバ又はクライアントの区別なく、自分自身でセッションの確立を行うことができる。

【0082】ここで、複数のコンピュータ装置10で実行される各々のコミュニケーションプログラム間でセッションの確立を行う場合には、これらコミュニケーションプログラム間で接続設定情報の授受が行われる。この接続設定情報は、例えば、コミュニケーションプログラムの起動時にコンピュータ装置10によって生成されるものであり、この接続設定情報の送出元となるコンピュータ装置10に設定されたIPアドレス、及び当該コミュニケーションプログラムで利用されるポート番号などが記述されたファイルにより構成されている。なお、接続設定情報についての詳細は後述する。

【0083】そして、コミュニケーションプログラムから、他のコミュニケーションプログラムに対して接続設定情報が送出されると、この接続設定情報を取得したコミュニケーションプログラムは、接続設定情報に記述されたIPアドレスやポート番号などに基づいて、送出元であるコンピュータ装置10（ひいては、このコンピュータ装置10で実行されるコミュニケーションプログラム）に対して、接続処理を行い、セッションが確立される。

【0084】このとき、接続設定情報を含むファイルは、例えば拡張子によってコミュニケーションプログラムとの関連付けがなされており、いわゆるダブルクリック操作を行うことなどによってコンピュータ装置上でこのファイルが選択されると、自動的にコミュニケーションプログラムが起動するよう構成されている。

【0085】コミュニケーションシステムにおいては、起動時に接続設定情報を生成し、この接続設定情報を他のコミュニケーションプログラムに対して送出した側のコミュニケーションプログラムがサーバとしての機能を果たし、取得した接続設定情報に基づいて起動された側のコミュニケーションプログラムがクライアントとして動作するものとする。

【0086】ここで、上述のようにしてコンピュータ装置間で接続設定情報を授受するに際しては、例えば、サーバとなるコンピュータ装置10からクライアントとなるコンピュータ装置に対して、接続開始を促すメッセージが記載された電子メールに接続設定情報を含むファイルを添付して送信することにより実現されている。

【0087】なお、本例で説明するコミュニケーションシステムにおいては、電子メールを利用して接続設定情報を送出するものとするが、例えば、いわゆるFTPソフトウェアなどのような、インターネット11に接続されたコンピュータ装置の間で各種のファイル交換を実現するアプリケーションプログラムを用いることによって、接続設定情報をデータ・ファイル或いはアプリケーション・プログラムの形で送出するとしてもよい。また、例えば、コンピュータ装置の利用者（ユーザ）に対して接続開始を通知することなく、接続設定情報を直接コンピュータ装置間で授受することによって、ユーザに接続の開始（セッションの確立）を意識させることなく自動的にクライアント側のコンピュータ装置上でコミュニケーションプログラムが起動するように構成してもよい。

【0088】（2-4）コミュニケーションプログラムのモジュール構造

ここで、コミュニケーションプログラムにおけるモジュール構造の一例について、図7を参照しながら説明する。コミュニケーションプログラムは、例えば図7に示すように、コンピュータ装置10におけるネットワークインターフェース28の動作を制御するインターフェースモジュール50と、他のコンピュータ装置で実行されるコミュニケーションプログラム間でのセッションの確立などを提供するコアモジュール51と、コミュニケーションプログラムにおける基本的な機能を提供する基本モジュール52と、各々個別の機能を提供する複数のアプリケーションモジュール53と、グラフィカル・ユーザ・インターフェース（以下、GUI：Graphical User Interfaceと称する。）を管理するGUIモジュール54とにより構成されている。

【0089】インターフェースモジュール50は、いわばAPI（Application Program Interface）として構成されており、インターネット11等のコンピュータネットワークを介して他のコンピュータ装置で実行されるプログラムとの間で画像データ、音声データ、或いは文字データ等の各種情報の伝送路を確立し、ネットワーク通信の詳細を簡便な命令体系によって容易に処理可能とするモジュールである。このインターフェースモジュール50としては、例えば、マイクロソフト株式会社の「Direct Play」などを用いることができる。

【0090】コアモジュール51は、他のコミュニケーションプログラムとの間でセッションの確立を行うとともに、確立されたセッションの管理を行うセッション管理機能を有している。具体的には例えば、接続設定情報を作成する接続設定情報作成機能、セッションを確立するセッション確立機能、コミュニケーションプログラム間でデータの送受信を行うデータ送受信機能、確立されたセッション内のプレーヤーを管理するセッション内プレーヤー管理機能などが、セッション管理機能としてコ

アモジュール51により提供される。

【0091】ここで、コミュニケーションシステムにおいては、サーバとなるコミュニケーションプログラムと、クライアントとなるコミュニケーションプログラムとが存在している。サーバ側のコミュニケーションプログラムは、クライアント側のコミュニケーションプログラムから送出されたデータを、このデータの宛先を参照して、宛先として指定された他のクライアント側のコミュニケーションプログラムに転送するなどの処理が行われる。このため、コミュニケーションシステムにおいては、画像データ、音声データ、或いは文字データなどの各種情報を授受するに際して、セッションを確立しておくことが必要となる。そこで、コミュニケーションプログラムにおいては、このようなセッションの確立や管理を行うためのインターフェースとしてセッション管理機能がコアモジュール51により提供されている。

【0092】コアモジュール51は、IPアドレス及びポート番号などを取得して接続設定情報が記述されたファイルを生成する。また、このファイルに対して暗号化や復号化などを行う。また、コアモジュール51は、クライアントとして動作する場合に、取得した接続設定情報に記述されたIPアドレス及びポート番号などに基づいて、サーバ側となるコンピュータ装置に対する接続を行う。これにより、セッションが確立される。

【0093】また、コアモジュール51は、セッション内に存在するコミュニケーションプログラム（プレイヤー）の管理を行う。具体的には例えば、プレイヤーのリストを生成或いは取得したり、プレイヤー毎に割り当てられた固有の識別情報（プレイヤーID）の取得或いは管理を行う。また、コアモジュール51は、新規なプレイヤーとの接続が確立されたり、所定のプレイヤーとの接続が切断されたり、プレイヤー毎の接続状態や接続名などの情報を含むプレイヤー情報が変更されるなどして、イベントが生じた場合に、このイベントを基本モジュール52及び各アプリケーションモジュール53に対して通知する。

【0094】また、コアモジュール51は、複数のアプリケーションモジュール53の各々に対する制御を行うアプリケーションモジュール管理機能を有している。具体的には例えば、各アプリケーションモジュール53の起動管理や、各アプリケーションモジュール53との間でデータの送受信などを行う。

【0095】コアモジュール51は、具体的には例えば、コミュニケーションプログラムに実装されているアプリケーションモジュール53に関するモジュール情報を、コンピュータ装置10の所定の記憶領域から取得して、実装済みのアプリケーションモジュール53をリスト化する。このモジュール情報は、例えば、アプリケーションモジュール毎に固有のモジュール識別情報、GUIに関する情報であるGUI情報、或いは、コミュニケ

ーションプログラムの起動と同時に動作を開始するか否かを示すフラグ情報などにより構成されている。そして、コアモジュール51は、このモジュール情報に基づいて、各アプリケーションモジュール53の起動状態を管理する。

【0096】また、コアモジュール51は、起動されていないアプリケーションモジュール53を起動したり、コンピュータ装置10の表示部24に対する表示/非表示の切り替え制御などを行う。

【0097】ここで、コアモジュール51の動作の一例として、クライアント側である一方のコミュニケーションプログラムから他方のコミュニケーションプログラムに対して、サーバ側のコミュニケーションプログラムを介してデータを送信する場合について、図8を参照しながら説明する。

【0098】この場合において、データ送信側で動作するコアモジュール51aは、基本モジュール52やアプリケーションモジュール53から送信されたデータを受信し、このデータに対して送信ヘッダーを付与して、サーバ側のコミュニケーションプログラムに対して送信する。このようにサーバ側に送信するに際しては、受信したデータの内容については関与しない。

【0099】一方、サーバ側で動作するコアモジュール51bは、データ送信側から取得したデータに含まれる送信ヘッダーを参照して、この送信ヘッダーに宛先として記述されたデータ受信側のコミュニケーションプログラムに対して、データ送信側から取得したデータを送信する。

【0100】また、データ受信側で動作するコアモジュール51cは、取得したデータに含まれる送信ヘッダーを参照して、このデータを所定のアプリケーションモジュール53に対して受け渡す。このとき、コアモジュール51cは、データ受信側におけるコミュニケーションプログラムでデータの受け渡し先として該当するアプリケーションモジュール53が起動していない場合に、このアプリケーションモジュール53を起動処理する。

【0101】また、コアモジュール51cは、データ受信側のコミュニケーションプログラムに該当するアプリケーションモジュール53が存在しない場合に、この旨を示すメッセージをデータ送信側のコミュニケーションプログラムに対して送信する。このとき、コアモジュール51cは、取得したデータを受け渡す対象となるアプリケーションモジュール53として、全てのアプリケーションモジュール53が指定されている場合には、起動中であるアプリケーションモジュールにのみ、このデータを受け渡す。

【0102】コアモジュール51は、上述のように動作することによって、クライアントとして動作するコミュニケーションプログラム間でデータの受け渡しを行う。

【0103】一方、基本モジュール52は、コミュニケ

ーションプログラムで用いる各種ウィンドウを用意する機能を有するモジュールである。また、基本モジュール52は、コミュニケーションプログラムの実行処理に必要な各種の情報を設定する設定機能、及び、セッションを確立する際に接続設定情報を電子メールに添付してクライアント側に送信する電子メール送信機能などを有する。

【0104】また、アプリケーションモジュール53は、コミュニケーションプログラムに必要な応じて複数実装され、それぞれ独自の機能を提供する機能を有している。本例におけるコミュニケーションプログラムにおいては、アプリケーションモジュール53として、個人情報管理モジュール、画像送信モジュール、音声データ送受信モジュール、Web機能モジュール、チャット内容転送モジュール、チャットログモジュール、感情表現モジュール、アクションモジュール、ライブ出演モジュール、及び意見収集モジュールなどが実装されているものとする。

【0105】個人情報管理モジュールは、セッション内に存在する各コミュニケーションプログラム、すなわち各ユーザ（プレイヤー）に対応した画像データや名前情報などの個人情報を管理するモジュールである。

【0106】このコミュニケーションプログラムにおいては、最初に起動された状態で、ユーザに対応した画像や名前などの入力及び設定をユーザに要求して取得する。このとき、コアモジュール51を介して個人情報管理モジュールに対して、表示要求が送信される。このようにして他のモジュールからの表示要求を受信すると、個人情報管理モジュールは、GUIモジュール54に対して所定の取得要求を送信して、該当する個人情報を取得し、コンピュータ装置10に表示されたウィンドウ内の所定の領域に所定の個人情報を表示する。

【0107】また、個人情報管理モジュールは、他のモジュールからのプレイヤー情報更新要求を受信した場合に、ネットワークを介して接続が確立された他のコミュニケーションプログラムにおける個人情報管理モジュールに対して、個人情報取得要求を送信する。このとき、個人情報取得要求を取得した側の個人情報管理モジュール53aは、自分自身の個人情報を取得して表示通知として返信する。

【0108】このようなプレイヤー情報更新要求は、例えば、コミュニケーションシステムに対して新たにユーザが参入した場合に、コアモジュール51によって個人情報管理モジュールに対して送信される。

【0109】画像送信モジュールは、画像データの追加処理、削除処理、或いは選択時の処理などを提供するモジュールである。また、画像送信モジュールは、コンピュータ装置10に搭載又は接続されたデジタルビデオカメラ29に対して、撮影状態のオン・オフの切り替え制御などの各種制御を行う。デジタルビデオカメラ29の

撮影状態がオンである場合には、インターネット11に対する通信状態の負荷を監視しながら、画像データの送信処理を行う。なお、画像送信モジュールにおいては、ユーザによる設定に応じて、他のコミュニケーションプログラムに対する送信を非保証通信で行うこともできる。この場合には、送信した画像データが伝送路の途中で失われた場合であっても再送信を行わない。

【0110】音声送受信モジュールは、画像送信モジュールに相当するものであり、音声データの追加処理、削除処理、或いは選択時の処理などを提供するモジュールである。また、音声送受信モジュールは、インターフェースモジュール50に実装された音声機能を利用して、コミュニケーションプログラム間で音声データの送受信を実現する機能を有している。なお、コミュニケーションシステムにおいては、サーバ側のコミュニケーションプログラムにおいて音声出力をオンにしている場合のみ、クライアント側のコミュニケーションプログラムにおいても音声出力をオンとすることが可能とされている。また、クライアント側のコミュニケーションプログラムから送出された音声データは、サーバ側のコミュニケーションプログラムに実装された音声送受信モジュールによってミキシングされ、再度各クライアント側のコミュニケーションプログラムに対して送信される。

【0111】Web機能モジュールは、コミュニケーションプログラムが実行されるコンピュータ装置10、或いはインターネット11に接続された他のコンピュータ装置に保持されたハイパーテキストや画像データなどの各種情報を取得して、コミュニケーションプログラムのウィンドウ内における所定の表示領域に、取得した各種情報を表示するWeb情報表示機能を提供するモジュールである。また、Web機能モジュールは、他のコミュニケーションプログラムとの間で、インターネット11上に存在する各種情報（リソース）の所在地及び取得方法を示すURL（Uniform Resource Locator）を共有するURL共有機能を有する。

【0112】チャット内容転送モジュールは、文字データがGUIモジュール54に対して入力されたことを示すイベントが、このGUIモジュール54から通知された際に、このイベントに基づいて入力された文字データを取得し、取得した文字データを含むチャットメッセージ通知を、セッションが確立された他のコミュニケーションプログラムの全てに対して送信するモジュールである。また、チャット内容転送モジュールは、チャットメッセージ通知を受信すると、このチャットメッセージ通知に含まれる文字データを表示する要求をGUIモジュール54に対して行う。これにより、コミュニケーションプログラムのウィンドウ内の所定の位置に、いわゆる「吹き出し」状の文字表示領域が確保され、この領域内に文字データが表示される。

【0113】チャットログモジュールは、チャット内容

転送モジュールから送信されたチャットメッセージ通知などに基づいて、入力又は受信した文字データを記録してチャットログファイルを生成する。チャットログモジュールは、所定の記憶容量分の文字データを、コンピュータ装置10のRAM21内に記憶するとともに、必要に応じて、RAM21内に記憶された文字データをHDD23などに待避させてチャットログファイルを生成する。また、チャットログモジュールは、チャットログを表示する要求がなされた場合に、チャットログファイル内に記憶された文字データを取得して、コミュニケーションプログラムのウィンドウ内の所定の領域に表示する機能を有している。

【0114】感情表現モジュールは、感情表現に関するアニメーション効果の読み込みや表示などを行うモジュールである。また、感情表現モジュールは、感情を表現する際に選択されるボタンの表示などをGUIモジュール54に要求する。

【0115】また、感情表現モジュールは、GUIモジュール54により所定のボタンが選択された通知を受信すると、このボタンに対応した感情表現データ（アニメーションデータ）を、セッションが確立されている全てのコミュニケーションプログラムに対して送信する。一方、感情表現データを受信した際には、この感情表現データを表示する要求をGUIモジュール54に対して行う。なお、感情表現についての詳細は後述する。

【0116】アクションモジュールは、アクションデータの読み込みや表示などを行うモジュールである。また、アクションモジュールは、アクションを表示する際に選択されるボタンの表示などをGUIモジュール54に要求する。

【0117】また、アクションモジュールは、アクションを表示する際に選択されるボタンがユーザによって選択されると、選択されたボタンに対応したアクションデータ（アニメーションデータ）を、セッションが確立されている全てのコミュニケーションプログラムに対して送信する。一方、アクションデータを受信した際には、このアクションデータを表示する要求をGUIモジュール54に対して行う。

【0118】ライブ出演モジュールは、インターネット11を介して画像データや音声データのライブ配信を行うライブ配信プログラムと連携して動作するモジュールである。コミュニケーションプログラムは、ライブ出演モジュールが実装されていることにより、外部のライブ配信プログラムとの間で画像データや音声データ等の授受を行うことが可能とされている。

【0119】意見収集モジュールは、コミュニケーションプログラムが実行される複数のコンピュータ装置10のユーザ同士で意見や感情などを含む情報を収集するモジュールであり、先に図1及び図2を参照して説明した機能と同等の機能を含むモジュールである。

【0120】なお、コミュニケーションシステムにおいては、相互に接続された複数のコンピュータ装置のうち、所定のコンピュータ装置（例えば最初に意見収集モジュール53jが起動されたコンピュータ装置）が他のコンピュータ装置から情報を収集するサーバとしての動作し、他のコンピュータ装置で動作する意見収集モジュール53jはサーバ側の意見収集モジュール53jに対して情報を送出するクライアントとしての動作する。

【0121】このとき、サーバ側となる意見収集モジュール53jが動作するコンピュータ装置は、コミュニケーションシステムにおけるシステム全体のサーバとなるコミュニケーションプログラムが動作するコンピュータ装置と同一であってもよいし、異なってもよい。

【0122】アプリケーションモジュール53は、上述したような各種のモジュールにより構成されている。なお、コミュニケーションプログラムにおいては、実装されるアプリケーションモジュール53の数や機能に限定されるものではなく、上述した各種のモジュールの他にも、それぞれ独自の機能を提供するモジュールがアプリケーションモジュール53のひとつとして実装されていてもよい。また、コミュニケーションプログラムにおいては、必要に応じてアプリケーションモジュール53の追加又は削除を行うことが可能とされている。

【0123】GUIモジュール54は、コミュニケーションプログラムで発生するウィンドウ表示等の画面表示を提供するモジュールである。ただし、ダイアログボックスなどの各種ウィンドウの基本的な描画については、基本モジュール52により提供される。GUIモジュール54は、他のモジュールからなされた画面表示要求に応じて、ウィンドウ内の描画を行い、機能選択ボタンや画像データなどの表示を行う。

【0124】このGUIモジュール54は、機能選択ボタンの位置や並べ方、或いは画像データの表示位置や、ウィンドウ内における全体的な配列・構成に関する情報は有しているが、機能選択ボタンの数や内容に関しては、コアモジュール51或いは各アプリケーションモジュール53による要求に含まれるデータを参照することにより表示する。

【0125】なお、コミュニケーションプログラムに実装されるアプリケーションモジュール53は、GUIモジュール54に依らずに、独自に描画処理することが可能なアプリケーション表示領域を利用することが可能とされている。このようなアプリケーション表示領域を利用して画面表示を行う場合には、アプリケーションモジュール53からの要求に応じてGUIモジュールがアプリケーション表示領域を確保し、確保されたアプリケーション表示領域内に対する描画処理は、アプリケーションモジュール53側で行うことができる。

【0126】また、GUIモジュール54は、ウィンドウ内に表示された機能選択ボタン等がユーザによって選



択された場合に、この機能選択ボタンが選択されたことを示すイベントを、基本モジュール52やアプリケーションモジュール53に対して通知する機能を有している。

【0127】コミュニケーションプログラムは、上述したように、複数のモジュールによって構成されてなり、各モジュールが必要に応じて適宜連携して動作するように構成されている。

【0128】(2-5)接続設定情報  
つぎに、コミュニケーションシステムにおいて、コンピュータ装置間でセッションを確立する際に用いられる接続設定情報について説明する。接続設定情報は、サーバとなるコミュニケーションプログラムが実行されるコンピュータ装置において生成される情報である。

【0129】接続設定情報は、例えば図9に示すように、クライアントとなるコミュニケーションプログラムがサーバとなるコミュニケーションプログラムに対してセッションを確立する際に認証などを行うためのアクセスキー、コミュニケーションプログラムが利用するコンピュータ装置10のネットワークインターフェース28のポート番号、サーバとなるコミュニケーションプログラムが実行されるコンピュータ装置10に設定されたIPアドレスの数、及びサーバとなるコミュニケーションプログラムが実行されるコンピュータ装置10に設定された一連のIPアドレスなどによって構成される。

【0130】(2-6)コミュニケーションプログラムによる基本処理

以下では、上述したコミュニケーションプログラムがコンピュータ装置10において実行される場合における基本的な一連の処理について、図10及び図11に示すフローチャートを参照しながら順を追って説明する。

【0131】コミュニケーションプログラムは、実行処理が開始(起動)されると、図10に示すステップS10において、機能モジュールリストを参照することにより、起動フラグが立っているモジュールを起動する。機能モジュールリストは、例えば図12に示すようなデータ構造とされており、コミュニケーションプログラムを構成するモジュール毎に、モジュールに固有の識別情報(ID)と、モジュールに固有のモジュール名と、モジュールの実行形態や利用条件などを示すタイプと、起動時の条件に応じて起動されるか否かを示す起動フラグとにより構成されている。コミュニケーションプログラムは、機能モジュールリストを参照することによって、起動時の条件に応じて起動するモジュールを選択して起動することが可能とされている。

【0132】次に、コミュニケーションプログラムは、ステップS11において、他のコンピュータ装置により実行されるコミュニケーションプログラムから接続設定情報を受信しているか否かを判定する。この判定の結果、受信している場合にはステップS12に処理を進

め、受信していない場合にはステップS13に処理を進める。

【0133】ここで、コミュニケーションプログラムは、接続設定情報を受信している場合に、当該コミュニケーションプログラムがクライアントとして動作して、接続設定情報の送信元であるサーバ側のコミュニケーションプログラムとの間で各種情報の送受信を行うこととなる。一方、接続設定情報を受信していない場合には、当該コミュニケーションプログラムがサーバとして動作する。

【0134】ステップS12において、コミュニケーションプログラムは、受信した接続設定情報に基づいて、この接続設定情報の送信元であるサーバ側のコミュニケーションプログラムとの間でセッションを確立する処理を行う。

【0135】ステップS13において、コミュニケーションプログラムは、サーバとして動作することを要求されるか否かを判定する。この判定は、ステップS11における判定に対応しており、接続設定情報を他のコンピュータ装置で実行されるコミュニケーションプログラムから受信したか否かを判定することによって行われる。そして、この判定の結果、サーバモジュールを起動する場合にはステップS14に処理を進め、サーバモジュールを起動せずにクライアントとして動作する場合にはステップS17に処理を進める。

【0136】ステップS14において、コミュニケーションプログラムは、自身が起動したサーバモジュールに対してセッションが確立されて接続済みであるか否かを判定する。この判定の結果、未だ接続が行われていない場合にはステップS15に処理を進め、接続済みである場合にはステップS17に処理を進める。

【0137】ステップS15において、コミュニケーションプログラムは、サーバ機能を提供するサーバモジュールを起動する。次に、ステップS16において、コミュニケーションプログラムは、自身起動したサーバモジュールに対してセッションを確立して接続を行う。これにより、当該コミュニケーションプログラムにおいては、自身が起動したサーバモジュールによりサーバとしての機能が実現されるとともに、サーバモジュール以外の他のモジュールは、当該サーバモジュールに対して、いわばクライアントとして接続動作することが可能となる。

【0138】コミュニケーションプログラムにおいては、このようにサーバ機能がモジュールとして実現されていることから、サーバとして動作する場合であっても、クライアントとして動作する場合と同様な手続きにより、サーバモジュール以外の他のモジュールが、サーバに対してアクセスすることが可能となる。このため、これら他のモジュールにおける処理手続きを簡略化する

ことができる。なお、ステップS16において、サーバモジュールに対するセッションが確立された後に、コミュニケーションプログラムは、ステップS17に処理を進める。

【0139】ステップS17において、コミュニケーションプログラムは、コンピュータ装置10の画面上にウィンドウを表示し、このウィンドウ内に表示された入力領域や各種の機能選択ボタン等によって、ユーザによる各種指示操作が入力可能な状態となる。そして、ステップS17において、コミュニケーションプログラムは、上述した機能選択ボタンがユーザによって選択され、この機能選択ボタンに対応した機能モジュールを起動するか否かを判定する。この判定の結果、機能モジュールを起動する場合にはステップS18に処理を進め、起動しない場合にはステップS19に処理を進める。

【0140】ステップS18において、コミュニケーションプログラムは、ステップS17において選択された機能選択ボタンに対応した機能モジュールを起動する。そして、機能モジュールを起動した後に、コミュニケーションプログラムは、ステップS19に処理を進める。

【0141】ステップS19において、コミュニケーションプログラムは、メッセージ送信キューに送信すべきメッセージが存在するか否かを判定する。そして、メッセージ送信キューにメッセージが存在する場合にはステップS20に処理を進め、メッセージが存在しない場合には図11に示すステップS21に処理を進める。

【0142】ここで、コミュニケーションプログラムは、他のコミュニケーションプログラムとの間で画像データ、音声データ、或いは文字データなどの各種情報を授受するに際して、これら情報がメッセージと称される情報単位に分割される。そして、相手のコミュニケーションプログラムに対して送信すべきメッセージがメッセージ送信キューに、相手のコミュニケーションプログラムから受信したメッセージがメッセージ受信キューに、それぞれ一時的に蓄積される。なお、メッセージ送信キュー及びメッセージ受信キューは、例えば、コンピュータ装置10のRAM21における記憶領域内に、予め所定の容量だけ確保されている。

【0143】ステップS20において、コミュニケーションプログラムは、メッセージ送信キューに存在するメッセージをセッションが確立されているサーバに対して送信する。このステップS20における処理の後に、コミュニケーションプログラムは、処理を図11に示すステップS21に進める。

【0144】ステップS21において、コミュニケーションプログラムは、メッセージ受信キューにサーバから受信したメッセージが存在するか否かを判定する。そして、メッセージ受信キューにメッセージが存在する場合には処理をステップS22に進め、メッセージが存在しない場合には処理をステップS25に進める。

【0145】ステップS22において、コミュニケーションプログラムは、メッセージの送信先となる機能モジュール、すなわち、このメッセージを利用する機能モジュールが起動済みであるか否かを判定する。この判定の結果、送信先として該当する機能モジュールが未だ起動されていない場合にはステップS23に処理を進め、起動済みである場合にはステップS24に処理を進める。

【0146】ステップS23において、コミュニケーションプログラムは、メッセージの送信先となる起動モジュールを起動する。そして、送信先として該当する機能モジュールを起動した後に、コミュニケーションプログラムは、処理をステップS24に進める。

【0147】ステップS24において、コミュニケーションプログラムは、メッセージ送信キューに存在するメッセージの送信先として該当する機能モジュールに対して、当該メッセージを送信する。このステップS24における処理の後に、コミュニケーションプログラムは、処理をステップS25に進める。

【0148】ステップS25において、コミュニケーションプログラムは、ユーザから所定の指示操作が行われることにより、実行動作を終了することを要求されているか否かを判定する。この判定の結果、終了することを要求されている場合には、処理をステップS26に進め、終了することを要求されていない場合には、処理を図10に示すステップS13に進めて、上述したステップS13以降の一連の処理を繰り返す。

【0149】ステップS26において、コミュニケーションプログラムは、サーバ機能を実現するサーバモジュールを自身で起動したか否かを判定する。すなわち、当該コミュニケーションプログラムがサーバとして動作しているか否かを判定する。この判定の結果、自身でサーバモジュールを起動した場合には処理をステップS27に進め、自身でサーバモジュールを起動しておらず、クライアントとして動作している場合には、各種の終了処理を行って、一連の処理動作を停止する。

【0150】ステップS27において、コミュニケーションプログラムは、ステップS15において自身で起動したサーバモジュールに対して終了処理を行い、このサーバモジュールの動作を停止する。この後に、コミュニケーションプログラムは、各種の終了処理を行って、一連の処理動作を停止する。

【0151】つぎに、上述したステップS15において起動されるサーバモジュールにおける一連の処理について、図13及び図14に示すフローチャートを参照しながら順を追って説明する。

【0152】サーバモジュールは、実行処理が開始されると、図13に示すステップS50において、クライアントからの接続要求（セッション確立要求）を受信したか否かを判定する。このとき、クライアントとしては、当該サーバモジュールを起動したコミュニケーションプ

プログラムを構成する他の機能モジュールであってもよいし、他のコンピュータ装置で実行されるコミュニケーションプログラムを構成する機能モジュールであってもよい。そして、この判定の結果、接続要求を受信している場合にはステップS51に処理を進め、受信していない場合にはステップS55に処理を進める。

【0153】ステップS51において、サーバモジュールは、現在接続しているユーザの数が、予め設定された最大人数に達しているか否かを判定する。この判定の結果、最大人数に達していない場合にはステップS52に処理を進め、最大人数に達している場合にはステップS55に処理を進める。

【0154】ステップS52において、サーバモジュールは、新たに接続要求を行ったユーザに対して、ユーザ毎に固有の情報であるユーザIDを生成するとともに、このユーザ側で動作するコミュニケーションプログラムとの間でセッションを確立して接続を行う。これにより、接続要求を行ったユーザ側で動作するコミュニケーションプログラムがクライアントとして、当該サーバモジュールとの間で通信状態が確立され、画像データ、音声データ、或いは文字データなどの各種情報を授受を行うことが可能となる。

【0155】次に、ステップS53において、サーバモジュールは、新たに接続要求を行ったユーザ側でコミュニケーションプログラムを実行するコンピュータ装置のIPアドレスと、このユーザのユーザ名とを取得するとともに、これらIPアドレス及びユーザ名と、ステップS52において生成したユーザIDとをユーザリストに追加する。

【0156】ここで、ユーザリストは、例えば図15に示すようなデータ構造とされており、サーバモジュールに対してセッションの確立が行われたユーザのユーザIDと、このユーザのユーザ名と、このユーザ側でコミュニケーションプログラムを実行するコンピュータ装置のIPアドレスとにより構成されている。

【0157】次に、ステップS54において、サーバモジュールは、セッションが確立されている全てのクライアントに対して、ステップS53において追加したユーザのユーザIDなどを通知する。これにより、サーバモジュールに接続された全てのクライアントは、新たなユーザが接続されたことを知ることができる。このステップS54における処理の後に、サーバモジュールは、ステップS55に処理を進める。

【0158】ステップS55において、サーバモジュールは、セッションが確立されているクライアントとの間で接続状態が切断されたか否かを判定する。この判定の結果、接続状態が切断されている場合にはステップS56に処理を進め、接続状態が切断されていない場合には図14に示すステップS58に処理を進める。このとき、接続状態が切断される要因としては、例えば、サー

バモジュールとクライアントとの間の伝送路において生じた不具合、ユーザによるコミュニケーションモジュールの終了処理などを挙げることができる。

【0159】ステップS56において、サーバモジュールは、ステップS55において接続状態が切断されたと判定されたユーザに関する情報を、ユーザリストから削除する。次に、ステップS57において、サーバモジュールは、ステップS56でユーザリストから削除したユーザに関するユーザIDなどの情報を、セッションが確立されている全てのクライアントに対して通知する。これにより、サーバモジュールに接続された全てのクライアントは、当該ユーザの接続が切断されたことを知ることができる。このステップS57における処理の後に、サーバモジュールは、図14に示すステップS58に処理を進める。

【0160】ステップS58において、サーバモジュールは、接続されたクライアントからメッセージが送信されたか否かを判定する。この判定の結果、送信されている場合にはステップS59に処理を進め、送信されていない場合にはステップS61に処理を進める。

【0161】ステップS59において、サーバモジュールは、メッセージの宛先として指定されたユーザIDを参照し、ユーザリストに基づいて当該ユーザIDに対応したIPアドレスを取得する。次に、ステップS60において、サーバモジュールは、ステップS59において取得したIPアドレスが設定されたコンピュータ装置に対して、インターネット11等のコンピュータネットワークを介してメッセージを送信する。これにより、メッセージが送信先のコミュニケーションプログラムに届けられる。このステップS60における処理の後に、サーバモジュールはステップS61に処理を進める。

【0162】ステップS61において、サーバモジュールは、コミュニケーションプログラムからの終了要求を受信したか否かを判定する。そして、この判定の結果、終了要求を受信した場合には、各種の終了処理を行って、一連の処理動作を停止する。また、終了要求を受信していない場合には、処理を図13に示すステップS50に進めて、上述したステップS50以降の一連の処理を繰り返す。このサーバモジュールに対する終了要求は、図11に示したコミュニケーションプログラムの一連の処理におけるステップS27が処理された場合に相当するものである。

【0163】コミュニケーションプログラムは、以上で説明したようにして一連の処理を行うアプリケーション・プログラムである。上述した一連の処理の説明から明らかであるように、コミュニケーションプログラムは、必要に応じてサーバ或いはクライアントとして動作することが可能とされている。

【0164】(2-7) コミュニケーションプログラムによる画面表示

つぎに、上述したコミュニケーションプログラムがコンピュータ装置10において実行処理されることにより表示部24の画面上に表示されるアプリケーションウィンドウについて、図面を参照しながら順を追って説明する。

【0165】なお、コミュニケーションプログラムは、起動時の条件に応じた状態でウィンドウ表示されるように構成されているが、以下の説明においては、最も基本的な条件の下で実行処理される場合の一例について説明するものとする。

【0166】また、コミュニケーションシステムにおいては、各コンピュータ装置10にコミュニケーションプログラムが実行可能な状態で備えられ、各コンピュータ装置10上でコミュニケーションプログラムが動作して互いに各種情報を授受することにより構成されるが、以下の説明においては、特定のコンピュータ装置10上で動作するコミュニケーションプログラムが実行処理されたときのウィンドウ表示について説明することとする。

【0167】また、以下の説明においては、着目して説明するコミュニケーションプログラムの利用者を「ユーザ」と称し、当該コミュニケーションプログラムに接続されるコミュニケーションプログラムの利用者、すなわち、相手方の利用者を「クライアント」と称することとする。ただし、以下で着目して説明するコミュニケーションプログラムは、必ずしもサーバ機能を果たしている必要はなく、相手側の利用者（クライアント）側で動作するコミュニケーションプログラムによってサーバ機能が果たされていてもよい。

【0168】コミュニケーションプログラムの実行処理が開始されると、表示部24の画面上には、図16に示すようなユーザ情報設定ウィンドウ100が表示される。このユーザ情報設定ウィンドウ100は、コミュニケーションプログラムの起動に際して、ユーザ自身に対応した名前及び顔画像の選択を促すためのウィンドウであり、名前をテキスト入力するためのテキスト入力領域S100と、顔画像に対応した画像ファイルを選択するための顔画像選択領域S101とを有している。

【0169】テキスト入力領域S100は、例えばコンピュータ装置10に接続されたマウスなどにより選択することによって、テキスト入力可能な状態となり、この状態でキーボードなどにより入力したテキストが入力される領域である。このテキスト入力領域S100に入力されたテキストが、以後のコミュニケーションプログラムの処理において、ユーザの名前として設定される。

【0170】顔画像選択領域S101は、予め顔画像として登録されたコンピュータ装置10内に記憶されている画像データに対応したファイル名が一覧表示される領域である。この顔画像表示領域S101に一覧表示されたファイル名がユーザにより選択されることにより、選択されたファイル名に対応した画像データが以後のコミ

ュニケーションプログラムの処理において、ユーザの顔画像として設定される。

【0171】また、ユーザ情報設定ウィンドウ100には、ユーザが任意の画像データを顔画像として設定するに際して、この画像データに対応したファイルを参照するための参照ボタンS102を有している。参照ボタンS102が選択されると、コンピュータ装置10内に存在する画像データを選択するためのファイル選択ウィンドウが表示される。そして、このファイル選択ウィンドウ内でユーザがファイルを選択操作することにより、選択されたファイルに対応した画像データがユーザの顔画像として設定される。また、このようにして選択されたファイルのコンピュータ装置10における所在（パス）は、ユーザ情報設定ウィンドウ100のパス表示領域S103に表示される。なお、パス表示領域S103にパスを指定するテキストを直接入力することにより、任意の画像データ（ファイル）を顔画像として選択可能とされていてもよい。

【0172】また、ユーザ情報設定ウィンドウ100は、上述のようにしてユーザにより選択された画像データの内容をプレビュー表示するプレビュー表示領域S104を有している。これにより、コミュニケーションプログラムは、ユーザが所望とする顔画像を容易且つ確実に選択することが可能とされている。

【0173】なお、図16においては、予め選択された状態とされた、いわゆるデフォルトの顔画像がプレビュー表示領域S104に表示された場合の例について図示している。なお、以降の説明においては、このユーザ情報設定ウィンドウ100においてユーザによる顔画像の選択が特になされず、このデフォルトの顔画像が選択された場合を想定して説明する。

【0174】ユーザ情報設定ウィンドウ100は、次の起動時にも上述したようにして名前及び顔画像の選択を行うか否かを設定するためのチェックボックスS105と、名前及び顔画像の選択操作を終了するためのOKボタンS106と、名前及び顔画像の選択操作を中止して、コミュニケーションプログラムの起動を中止するためのキャンセルボタンS107とを有している。

【0175】コミュニケーションプログラムは、チェックボックスS105が「オン」に設定された場合には、次回に起動された際にもユーザ情報設定ウィンドウ100を表示する。一方、チェックボックスS105が「オフ」に設定された場合には、次の起動時にユーザ情報設定ウィンドウ100の表示を省略して、ユーザにより前回設定された名前及び顔画像を参照して用いる。

【0176】ここで、ユーザ情報設定ウィンドウ100におけるOKボタンS106がユーザにより選択されると、コミュニケーションプログラムは、基本表示モードに移行して、図17に示すような基本表示ウィンドウ110を表示する。なお、前回の起動時ユーザ情報設定ウ

ィンドウ100においてチェックボックスS17が「オフ」に設定されている場合には、コミュニケーションプログラムの起動時にユーザ情報設定ィンドウ100の表示が省略され、起動直後から基本表示モードに移行して基本表示ィンドウ110が表示される。

【0177】(2-7-1)基本表示モード  
ここで、コミュニケーションプログラムが基本表示モードに移行した場合について、図17に示す基本表示ィンドウ110を参照しながら説明する。

【0178】基本表示ィンドウ110は、コミュニケーションプログラムが基本表示モードに移行した場合に表示されるィンドウであり、図17に示すように、ユーザに対応した顔画像が表示されるユーザ顔画像フレームS110と、複数のクライアントに対応した顔画像がそれぞれ表示される複数のクライアント顔画像フレームS111と、各種機能の実行を選択操作するための複数の機能選択ボタンS112とを有している。

【0179】ユーザ顔画像フレームS110は、基本表示ィンドウ110の中央部に配されており、ユーザにより選択された顔画像を表示する顔画像表示領域S110aと、この顔画像表示領域S110aの下部に位置して、ユーザにより設定された名前を表示する名前表示領域S110bとにより構成されている。

【0180】クライアント顔画像フレームS111は、ユーザ顔画像フレームS110を中心とする仮想円の円周上に所定の間隔で配されている。これらクライアント顔画像フレームS111は、ユーザ顔画像フレームS110に相当してクライアント側の情報を表示するためのフレームであり、それぞれ、各クライアントにより選択された顔画像を表示する顔画像表示領域S111aと、この顔画像表示領域S111aの下部に位置して、各クライアントにより設定された名前を表示する名前表示領域S111bとにより構成されている。

【0181】なお、図17においては、未だクライアントが接続されていない状態をィン示している。この状態において、クライアント顔画像フレームS111には、クライアントが接続していないことを示す予め設定された所定の顔画像が表示された状態とされる。

【0182】また、クライアント顔画像フレームS111の各々は、それぞれ初期表示位置を中心とした所定の領域を、ゆるやかに移動しながら表示されている。これにより、基本表示ィンドウ110においては、各クライアント顔画像フレームS111が、いわば浮遊感を伴って表示された状態とされている。

【0183】機能選択ボタンS112は、ユーザ顔画像フレームS110を中心とした仮想円上に所定の間隔で配されている。なお、機能選択ボタンS112が配される仮想円の半径は、クライアント顔画像フレームS111が配される仮想円の半径よりも小とされている。すなわち、機能選択ボタンS112は、クライアント顔画像

フレームS111よりも内側に位置して表示されている。

【0184】各機能選択ボタンS112には、それぞれ所定の機能が対応付けされている。コミュニケーションプログラムは、ユーザによって機能選択ボタンS112のいずれかが選択操作されると、選択された機能選択ボタンS112に対応した機能を実現する動作モードに移行する。

【0185】図17に示す例においては、機能選択ボタンS112として、「設定」ボタンS112a、「終了」ボタンS112b、「ヘルプ」ボタンS112c、「友達」ボタンS112d、及び「ツール」ボタンS112eが表示された状態をィン示している。

【0186】設定ボタンS112aは、コミュニケーションプログラムに必要となる各種設定を行うための機能選択ボタンである。コミュニケーションプログラムは、ユーザによって設定ボタンS112aが選択されることにより、例えば、ユーザによる各種操作が行われた際に効果音を鳴らすか否かといった設定ィン目を表示する設定ィンドウ(ィン示を省略する。)を表示する。コミュニケーションプログラムにおいては、この設定ィンドウにより設定された事項をコンピュータ装置10内の所定の記憶領域に保存し、コミュニケーションプログラム自身の動作に反映させる。

【0187】終了ボタンS112bは、コミュニケーションプログラムの実行処理を終了するための機能選択ボタンである。コミュニケーションプログラムは、ユーザによって終了ボタンS112bが選択されることにより、全体の実行処理を終了する。

【0188】ヘルプボタンS112cは、コミュニケーションプログラムの操作をユーザに説明するヘルプ情報を表示するための機能選択ボタンである。コミュニケーションプログラムは、ユーザによってヘルプボタンS112cが選択されることにより、操作の案内や問題の解決方法などが記述されたヘルプ情報をヘルプィンドウ(ィン示を省略する。)にィン示する。このようにヘルプ情報を表示することが可能とされていることにより、コミュニケーションプログラムにおいては、操作に不慣れなユーザに対して、自身の動作や機能を分かりやすく説明することができる。

【0189】友達ボタンS112dは、インターネット11に接続された他のユーザ(クライアント)に対して、コミュニケーションプログラムに接続してコミュニケーションに参加することを促すためのボタンである。コミュニケーションプログラムは、ユーザによって友達ボタンS112dが選択されることにより、クライアントに対して参加を促す一連の処理を行う。なお、この処理についての詳細は後述する。

【0190】ツールボタンS112eは、ユーザによる各種操作を実現するツールモードに移行するための機能

選択ボタンである。コミュニケーションプログラムは、ユーザによってツールボタンS112eが選択されると、ツールモードに移行する。なお、このツールモードについての詳細は後述する。

【0191】また、基本表示ウィンドウ110は、ウィンドウの最上部に位置して、基本表示ウィンドウ110の表示状態を操作するための複数の操作アイコンS113が隣接して配されているとともに、ウィンドウの最下部に位置して、必要に応じてコミュニケーションプログラムの動作状態（ステイタス）や各種のメッセージが表示されるステイタス表示領域S114が配されている。

【0192】ここで、図17に示す例においては、操作アイコンS113として、「終了」アイコンS113a、「最大化」アイコンS113b、「最小化」アイコンS113c、及び「表示サイズ変更」アイコンS113dが配された場合について図示している。

【0193】終了アイコンS113aは、コミュニケーションプログラムの実行処理を終了するための操作アイコンである。コミュニケーションプログラムは、ユーザによって終了アイコンS113aが選択されることによって、全体の実行処理を終了する。

【0194】最大化アイコンS113bは、基本表示ウィンドウ110をコンピュータ装置10の表示画面の全面に拡大して表示するための操作アイコンである。コミュニケーションプログラムは、ユーザによって最大化アイコンS113bが選択されると、基本表示ウィンドウ110をコンピュータ装置10の表示画面の全面に拡大して表示する処理を行う。

【0195】最小化アイコンS113cは、基本表示ウィンドウ110の表示を中止して、コンピュータ装置10の表示画面から消去するための操作アイコンである。コミュニケーションプログラムは、ユーザによって最小化アイコンS113cが選択されると、基本表示ウィンドウ110の表示を中止して、コンピュータ装置10の表示画面から消去する処理を行う。なお、このように、表示画面から基本表示ウィンドウ110が消去された状態においても、コミュニケーションプログラムの実行処理は継続される。

【0196】表示サイズ変更アイコンS113dは、基本表示ウィンドウ110を縮小表示する縮小表示モードに移行するための操作アイコンである。コミュニケーションプログラムは、ユーザによって表示サイズ変更アイコンS113dが選択されると、基本表示モードから縮小表示モードに移行する。これにより、基本表示ウィンドウ110の表示領域が縮小され、例えば、図18に示すような縮小表示ウィンドウ120となる。

【0197】（2-7-2）縮小表示モード  
ここで、コミュニケーションプログラムが縮小表示モードに移行した場合について、図18に示す縮小表示ウィンドウ120を参照しながら説明する。

【0198】縮小表示ウィンドウ120は、コミュニケーションプログラムが縮小表示モードに移行した場合に表示されるウィンドウであり、基本表示ウィンドウ110に対して表示領域が小とされ、コンピュータ装置10の画面上で横方向に長いウィンドウ形状とされている。

【0199】ここで、図18に示す縮小表示ウィンドウ120においては、図17に示した基本表示ウィンドウ110と同等な機能を有するフレーム、ボタン、及びアイコンについての説明を省略し、同一の符号を付すこととする。なお、以下の説明においても、図中において同一の符号を付したフレーム、ボタン、及びアイコンは、前出したそれぞれに相当するものであるとして説明する。

【0200】この縮小表示ウィンドウ120においては、中央部に配されたユーザ顔画像フレームS110の両側に複数のクライアント顔画像フレームS111が横方向に並んで配されており、これらユーザ顔画像フレームS110及びクライアント顔画像フレームS111の下部に、機能選択ボタンS112が横方向に並んで配されている。また、縮小表示ウィンドウ120の最上部には、複数の操作アイコンS113が配されている。

【0201】コミュニケーションプログラムは、この縮小表示ウィンドウ120において、ユーザにより表示サイズ変更アイコンS113dが選択されると、縮小表示モードから基本表示モードに移行する。これにより、縮小表示ウィンドウ120の表示領域が拡大され、図17に示した基本表示ウィンドウ110となる。

【0202】すなわち、コミュニケーションプログラムにおいては、ユーザによって表示サイズ変更アイコンS113dが選択されることによって、基本表示モードと縮小表示モードとの間で自在に動作モードを移行することが可能とされている。

【0203】（2-7-3）クライアントの参加  
ここで、上述した友達ボタンS112dがユーザによって選択された場合について説明する。コミュニケーションプログラムは、ユーザによって友達ボタンS112dが選択されると、クライアントに対して参加を促す一連の処理を行う。

【0204】このとき、コミュニケーションプログラムは、ユーザが指定したクライアントに対して、接続設定情報を送信する。これにより、接続設定情報に含まれるIPアドレスに基づいてクライアント側からユーザ側に対するセッションの確立が行われて接続が完了することとなる。

【0205】このようにして接続設定情報をユーザからクライアントに対して送信する手法としては、例えば、電子メールに接続設定情報を含むファイルを添付する手法や、いわゆるFTPソフトウェアなどのような、インターネット11に接続されたコンピュータ装置の間で各種のファイル交換を実現するアプリケーションプログラ

ムを用いることによって、接続設定情報をデータ・ファイル或いはアプリケーション・プログラムの形で送出する手法を用いることができる。

【0206】また、クライアント側のコンピュータ装置においては、上述のようにして接続設定情報を受信した後に、例えば、このコンピュータ装置の利用者（ユーザ）による指示操作に応じてコミュニケーションプログラムを起動させるとしてもよいし、ユーザに対して接続開始を通知することなく、ユーザに接続の開始（セッションの確立）を意識させることなく自動的にコミュニケーションプログラムが起動するように構成してもよい。

【0207】（2-7-4）クライアントとの間のコミュニケーション

ここで、上述のようにして接続設定情報がクライアント側に送信され、クライアントとの間でセッションが確立されると、例えば、図19に示すように、例えば、基本表示ウィンドウ110におけるクライアント顔画像フレームには、接続されたクライアントの顔画像及び名前が表示されることとなる。

【0208】なお、図19においては、女性の半身を模した画像が設定された第1のクライアントと、動物の顔を模した画像が設定された第2のクライアントとの2つのクライアントが接続され、それぞれ、第1のクライアント顔画像フレームS111aと第2のクライアント顔画像フレームS111bとに表示された状態における基本表示ウィンドウ110を図示している。なお、以後の説明においては、これら第1及び第2のクライアントが接続された状態とされていることを想定する。

【0209】ところで、コミュニケーションプログラムは、例えばマウス操作により画面上でカーソルがユーザ顔画像フレームS110に重なるなどして、ユーザによってユーザ顔画像フレームS110が選択されると、図20に示すように、ユーザ顔画像フレームS110を縮小して表示するとともに、縮小表示されたユーザ顔画像フレームS110の近傍位置に、ユーザによってテキスト（文字データ）の入力が可能とされたテキスト入力領域S115を表示する。

【0210】このテキスト入力領域S115は、縮小表示されたユーザ顔画像フレームS110に対して、一般の漫画におけるいわゆる「吹き出し」状の外形を有する領域とされている。そして、コミュニケーションプログラムは、このテキスト入力領域S115に対してユーザによりテキストが入力されると、入力されたテキスト（文字データ）を、現在接続されているクライアントの全てに対して送信する。

【0211】また、コミュニケーションプログラムは、同様にしてクライアントから送信されたテキスト（文字データ）を受信すると、図21に示すように、当該クライアントに対応したクライアント顔画像フレームS111を縮小して表示するとともに、縮小表示されたクライ

アント顔画像フレームS111の近傍位置に、クライアントから送信されたテキストが表示されるテキスト表示領域S116を表示する。このテキスト表示領域S116は、縮小表示されたクライアント顔画像フレームS111に対して、一般の漫画におけるいわゆる「吹き出し」状の外形を有する領域とされている。

【0212】なお、図21においては、第1のクライアントから「こんにちは！」なるテキストが送信され、第1のクライアント顔画像フレームS111aが縮小表示されるとともに、この第1のクライアント顔画像フレームS111aの近傍位置にテキスト表示領域S116が表示された場合について図示している。また、コミュニケーションプログラムにおいては、例えば、複数のクライアントから同時にテキストが送信された場合には、各クライアントに対応したテキスト表示領域S116がそれぞれ表示される。すなわち、4人のクライアントから同時にテキストが送信された場合には、各クライアントに対応したクライアント顔画像フレームS111が縮小表示され、それぞれに吹き出し状のテキスト表示領域S116が表示されることとなる。

【0213】以上のようにして、コミュニケーションプログラムは、ユーザとクライアントとの間で文字データを相互に授受することが可能とされているとともに、複数のクライアントとの間で、同時進行的にテキストの授受を行うことが可能とされている。

【0214】なお、コミュニケーションプログラムにおいて、上述したようなテキスト入力領域S115及びテキスト表示領域S116テキストを利用したテキストの授受は、基本表示モードにおける基本表示ウィンドウ110内のみならず、他の動作モードにおけるウィンドウ内においても可能とされている。

【0215】（2-7-5）ツールモード  
ここで、コミュニケーションプログラムがツールモードに移行した場合について、図22に示すツール表示ウィンドウ150を参照しながら説明する。

【0216】ツール表示ウィンドウ150は、コミュニケーションプログラムがツールモードに移行した場合に表示されるウィンドウであり、図22に示すように、基本的には図17に示した基本表示ウィンドウ110と同様な構成とされている。このため、図22に示すツール表示ウィンドウ150においては、図17に示す基本表示ウィンドウ110と同一又は同等のフレーム、ボタン、及びアイコンについては、説明を省略し、同一の符号を付すこととする。

【0217】ツール表示ウィンドウ150は、基本表示ウィンドウ110との相違点として、図17に示した機能選択ボタンS112に代えて、複数の機能選択ボタンS150を有している。機能選択ボタンS150は、図17に示した機能選択ボタンS112と同様に、ユーザ顔画像フレームS110を中心とした仮想円上に所定の

間隔で配されている。なお、機能選択ボタンS150gが配される仮想円の半径は、クライアント顔画像フレームS111が配される仮想円の半径よりも小とされている。すなわち、機能選択ボタンS150は、クライアント顔画像フレームS111よりも内側に位置して表示されている。

【0218】各機能選択ボタンS150には、それぞれ所定の機能が対応付けされている。コミュニケーションプログラムは、ユーザによって機能選択ボタンS150のいずれかが選択操作されると、選択された機能選択ボタンS150に対応した機能を実現する動作モードに移行し、この動作モードで必要となる機能モジュールを起動する。

【0219】図22に示す例においては、機能選択ボタンS150として、「感情」ボタンS150a、「アクション」ボタンS150b、「ヘルプ」ボタンS150c、「戻る」ボタンS150d、「画像・音声」ボタンS150e、「チャットログ」ボタンS150f、「Webブラウザ」ボタンS150g、及び「情報収集」ボタンS150hが表示された状態を示している。

【0220】感情ボタンS150aは、ユーザによる感情表現を実現する感情表現モードに移行するための機能選択ボタンである。コミュニケーションプログラムは、ユーザによって感情ボタンS150aが選択されると、感情表現モードに移行する。

【0221】アクションボタンS150bは、ユーザによる他のクライアントに対するアクション表現を実現するアクション表現モードに移行するための機能選択ボタンである。コミュニケーションプログラムは、ユーザによってアクションボタンS150bが選択されると、アクション表現モードに移行する。

【0222】ヘルプボタンS150cは、図17に示した基本表示ウィンドウ110におけるヘルプボタンS112cに相当し、コミュニケーションプログラムの操作をユーザに説明するヘルプ情報を表示するための機能選択ボタンである。コミュニケーションプログラムは、ユーザによってヘルプボタンS150cが選択されることにより、操作の案内や問題の既決方法などが記述されたヘルプ情報をヘルプウィンドウ（図示を省略する。）に表示する。

【0223】戻るボタンS150dは、ツールモードを終了して基本表示モードに移行するための機能選択ボタンである。コミュニケーションプログラムは、ユーザによって戻るボタンS150dが選択されると、ツールモードを終了して基本表示モードに移行する。

【0224】画像・音声ボタンS150eは、ユーザによる画像や音声に関する各種設定操作を実現する画像音声設定モードに移行するための機能選択ボタンである。コミュニケーションプログラムは、ユーザによって画像・音声ボタンS150eが選択されると、画像音声設定モ

ードに移行する。

【0225】チャットログボタンS150fは、チャットログを表示するチャットログ表示モードに移行するための機能選択ボタンである。コミュニケーションプログラムは、ユーザによってチャットログボタンS150fが選択されると、チャットログ表示モードに移行する。

【0226】WebブラウザボタンS150gは、Webブラウジングモードに移行するための機能選択ボタンである。コミュニケーションプログラムは、ユーザによってWebブラウザボタンS150gが選択されると、Webブラウジングモードに移行する。

【0227】情報収集ボタンS150hは、情報収集モードに移行するための機能選択ボタンである。コミュニケーションプログラムは、ユーザによって情報収集ボタンS150hが選択されると、情報収集モードに移行する。

【0228】また、コミュニケーションプログラムは、ツール表示ウィンドウ150が表示された状態において、表示サイズ変更アイコンS113dがユーザにより選択されると、図18に示した縮小表示ウィンドウ120となる。このとき、ツールモードの状態では縮小表示ウィンドウ120となった場合には、図18に示した縮小表示ウィンドウ120内には、各機能選択ボタンS112に代えて、上述した機能選択ボタンS150が表示されることとなる。また、図18に示した縮小表示ウィンドウ120の状態ではツールモードに移行した場合には、縮小表示ウィンドウ120の状態のまま、各機能選択ボタンS112に代えて、上述した機能選択ボタンS150が表示されることとなる。

【0229】すなわち、コミュニケーションプログラムにおいては、動作モードに依存せずに、最大化アイコンS113bと最小化アイコンS113cとに対応して、ウィンドウが最大化された状態、又はウィンドウが最小化された状態となることが可能とされている。また、表示サイズ変更アイコンS113dがユーザによって選択される毎に、基本表示ウィンドウ110或いはツール表示ウィンドウ150に相当する標準サイズで表示された状態、又は縮小表示ウィンドウ120に相当する縮小サイズで表示された状態となることが可能とされている。

【0230】（2-7-6）情報収集モード

ここで、ユーザによって情報収集ボタンS150hが選択され、コミュニケーションプログラムが情報収集モードに移行した場合について、図23に示す情報収集ウィンドウ220を参照しながら説明する。なお、図23に示す情報収集ウィンドウ220は、互いにセッションが確立された複数のコミュニケーションプログラムのうち、最初に情報収集モードに移行したコミュニケーションプログラムについて図示するものであり、後述する一連の情報収集処理においてサーバ側となるコミュニケーションプログラムで情報収集モードに移行した直後の状



態を図示するものである。

【0231】情報収集ウィンドウ220は、コミュニケーションプログラムが情報収集モードに移行した場合に表示されるウィンドウであり、図23に示すように、図18に示した縮小表示ウィンドウ120の下部に、新たに情報収集領域S220が確保された構成とされている。

【0232】情報収集領域S220内の上部には、収集する情報に関する設問を文字入力するための設問入力領域S221と、この設問に対する回答を要求する制限時間を入力するための制限時間入力領域S222とを有している。また、情報収集領域S220内で設問入力領域S221の下方には、設問に対する一対の対極的な回答基準をそれぞれ入力するための第1の回答基準入力領域S223及び第2の回答基準入力領域S224を有している。

【0233】情報収集領域S220の下部には、コメント入力領域S225と、第1乃至第3の入力先選択ボタンS226、S227、S228と、第1及び第2のコメント表示領域S229、S230とを有している。

【0234】これらコメント入力領域S225、第1乃至第3の入力先選択ボタンS226、S227、S228、第1及び第2のコメント表示領域S229、S230は、それぞれ、先の説明で図1に図示したテキスト入力領域1、第1乃至第3の入力先選択ボタン4、5、6、第1及び第2のチャット内容表示領域2、3に相当するものであり、それぞれと同等の機能を有するものである。

【0235】また、情報収集領域S220の中央付近の領域は、図1で説明した回答領域1に相当する回答領域S231として設定されている。回答領域S231内には、セッションが確立されている各ユーザの顔画像フレームS110、S111a、S111bが表示されている。

【0236】これらの顔画像フレームS110、S111a、S111bは、図1で説明したアイコン3に相当する機能を果たす目的で回答領域S231内に表示されており、回答領域S231内でそれぞれ各ユーザの回答に対応した位置に移動され、表示されるものである。ここで、回答領域S231内に表示される顔画像フレームS110、S111a、S111bは、それぞれ、情報収集ウィンドウ220の上部に配された縮小表示ウィンドウ120内に表示された顔画像フレームS110、S111a、S111bに対応するものであり、各ユーザの回答結果に対応付けがなされている。

【0237】また、この回答領域S231には、情報収集を行う際に生じる意見の対立を調整する第三者としての人物を表現するアイコンS232が表示されている。コミュニケーションシステムにおいては、例えば後に示す図26及び図27に示すように、アイコンS232に

隣接した位置に、必要に応じて吹き出し形状の説明表示領域S233を表示し、この説明表示領域S233内にユーザの操作手順や、各ユーザの現在の回答状況などを説明するテキストが表示される。これにより、ユーザが行うべき操作や現在の回答状況などをユーザに対して示すことができ、操作の混乱を防止して情報の収集を円滑に行うことができる。

【0238】なお、コミュニケーションシステムにおいては、情報収集モードで動作する場合においても、図20及び図21を参照した先の説明と同様にして、縮小表示ウィンドウ120内でテキストの授受を行うことにより、複数のユーザ間でのコミュニケーションを図ることが可能とされている。

【0239】以上のように構成された情報収集ウィンドウ220が表示された状態で、情報収集処理におけるサーバ側となるユーザによって、設問入力領域S221、制限時間入力領域S222、第1及び第2の回答基準入力領域S223、S224に対してそれぞれ、設問内容を示すテキスト、制限時間を示す数値、第1の回答基準、及び第2の回答基準が入力されると、情報収集モジュールによって情報収集処理が開始される。

【0240】ここで、上述のようにしてサーバ側で設問などが入力・決定されるまでの間に、クライアント側に表示される情報収集ウィンドウ220の一例を、図24に示す。このとき、クライアント側の情報収集ウィンドウ220には、図24に示すように、設問入力領域S221、制限時間入力領域S222、第1及び第2の回答基準入力領域S223、S224は表示されない。これにより、設問等の設定がサーバ側のユーザのみに限定され、複数のユーザによって設問等が入力されることにより生じる混乱を防止することができる。

【0241】つぎに、サーバ側で設問等が入力・決定され、情報収集処理が開始された状態における情報収集ウィンドウ220の一例について、図25に示す。なお、この状態においては、情報収集処理におけるサーバ側とクライアント側との双方で、情報収集ウィンドウ220が図25に示すような表示内容とされる。また、以下では、サーバ側のユーザにより、「明日、どこへ行く？」という設問、「3」分という数値、「海」及び「ハイキング」という回答基準が設定された場合について例示している。これらの設問等は、それぞれ、設問入力領域S221、制限時間入力領域S222、第1及び第2の回答基準入力領域S223、S224の表示位置に対応した位置に表示される。また、回答領域S231内の右上部には、各ユーザが最終的な回答を行う意思が固まったときに選択される回答同意ボタンS234が配されている。

【0242】ここで、情報収集処理が開始されると、各ユーザは、この情報収集ウィンドウ220内に配された各部S225～S230を用いて、設問に対する回答を

行うに際しての討論を行うことが可能とされている。

【0243】具体的には、コメント入力領域S225に対してユーザにより入力されたテキストが、第1乃至第3の入力先選択ボタンS226～S228の選択状態に応じて、第1のテキスト表示領域S229又は第2のテキスト表示領域S230内に記入される。このとき第1又は第2のテキスト表示領域S229、S230に記入された内容は、他のコンピュータ装置上で動作するコミュニケーションプログラムに送信され、各コンピュータ装置の表示画面に表示された情報収集ウィンドウ220における第1及び第2のテキスト表示領域S229、S230にそれぞれ表示される。コミュニケーションシステムにおいては、このようにして複数のユーザの間でメッセージ(テキスト入力領域S225に入力されたテキスト)を交換することにより、設定された設問に関して討論を行うことが可能である。

【0244】また、各ユーザは、例えばコンピュータ装置10に接続されたマウスを用いて、画面上に表示されるマウスカースルによりいわゆるドラッグ操作を行うことなどによって、自分の顔画像フレーム(本例においては顔画像フレームS110)を回答領域S231内の任意の位置に移動操作可能とされている。そして、各ユーザにより回答領域内に表示された顔画像フレームが移動されると、この顔画像フレームの座標がセッションが確立された全てのコンピュータ装置に送出され、各顔画像フレームの表示位置がそれぞれのコンピュータ装置の表示画面上における情報収集ウィンドウ220に反映される。

【0245】なお、本例においては、回答領域S231がX軸及びY軸により設定された2次元平面として構成されており、顔画像フレームは、この回答領域S231内で任意の位置に移動させることが可能である。ここで、回答領域S231のX軸は、後述するように、各ユーザの回答内容を示す目的で用いられる。なお、回答領域S231のY軸は、複数の顔画像フレームが重なってしまうことを防止する目的で設定されている。

【0246】また、十分な討論が行われるなどして、設定された設問に対する回答の意思が固まったユーザは、回答同意ボタンS234を選択する。そして、コミュニケーションシステムにおいては、全てのユーザがそれぞれ回答同意ボタンS234を選択された場合、又は予めサーバ側となるユーザにより設定された制限時間が経過した場合に、設問回答状態に移行する。

【0247】設問回答状態に移行すると、情報収集ウィンドウ220は、図26に示す表示内容となる。この設問回答状態においては、回答領域S231内に他のユーザの顔画像フレームS111a、S111bが表示されない。これにより、各ユーザは、他のユーザの回答内容に左右されずに回答することができる。

【0248】設問回答状態とされた情報収集ウィンドウ

220において、各ユーザは、回答領域S231内で自身の顔画像アイコンS110を移動操作する。このとき、顔画像アイコンS110を回答領域S231の中央位置から左に移動させるほど、第1の回答基準(本例では、「明日、どこへ行く?」という設問に対して「海」という回答)に意見が傾いていることを示し、顔画像アイコンS110を回答領域S231の中央位置から右に移動させるほど、第2の回答基準(本例では、「ハイキング」という回答)に意見が傾いていることを示している。また、顔画像アイコンS110を回答領域S231の中央付近に移動させた場合には、第1及び第2の回答基準に対して、中立的な意見(「どちらでもない」)であることを示している。

【0249】ここで、回答領域S231における中心のX座標が「0」であり、右方向に正の値が設定されているものとすると、顔画像アイコンS110の表示位置のX座標が負である場合に、このユーザの意見(回答)が第1の回答基準に傾いていることを示し、顔画像アイコンS110のX座標が正である場合に、このユーザの意見が第2の回答基準に傾いていることを示す。また、このX座標の絶対値が大きい程それぞれの回答基準に近いことを示し、絶対値が小さい場合には中立的な意見であることを示すこととなる。

【0250】この設問回答状態においては、各ユーザにより、例えば自身の顔画像フレームに対してマウスカースルによりいわゆるダブルクリック操作が行われることにより、最終的な回答が決定することとなる。

【0251】コミュニケーションシステムにおいては、各ユーザによる回答結果が、所定の回答データとしてサーバ側のコミュニケーションプログラムに送信され、このサーバ側のコミュニケーションプログラムによって集計処理又は分析処理される。

【0252】そして、サーバ側のコミュニケーションプログラムによって例えば各顔画像フレームのX座標の平均値を算出するなどして集計処理された結果を、サーバ側からクライアント側のコミュニケーションプログラムに送出することにより、情報収集ウィンドウ220は図27に示すような内容となる。なお、図27においては、自身の顔画像フレームS110の表示位置が、集計処理によって算出された座標に表示された状態を図示している。これにより、各ユーザは、他の全員の意見を集計した結果を知ることができる。

【0253】(2-7-7)情報収集モードにおける処理  
つぎに、コミュニケーションプログラムが情報収集モードで動作する場合の一連の処理の流れについて、図28に示すフローチャートを参照しながら説明する。なお、以下では、複数のコンピュータ装置10上で各々動作する複数のコミュニケーションプログラムのうち、最初に情報収集モジュールが起動して情報収集モードに移行す

るコミュニケーションプログラムに注目して説明する。また、以下で説明する処理は、コミュニケーションプログラムを構成する各種のモジュール（例えば、コアモジュール51、基本モジュール52、或いは情報収集モジュール等のアプリケーションモジュール53）が連携して動作することによって実現されるものである。

【0254】コミュニケーションプログラムは、ユーザによって情報収集ボタンS150hが選択されることにより情報収集モードに移行すると、図28に示すステップS240において、図23に示した情報収集ウィンドウ220をコンピュータ装置10の表示画面上に表示する。これにより、コミュニケーションシステムにおいては、当該コミュニケーションプログラムが情報収集処理におけるサーバとして機能することとなる。また、これにより、サーバ側のコミュニケーションプログラムでは、設問入力領域S221、制限時間重力領域S222、第1及び第2の回答基準入力領域S223、S224などにより、設問等が入力可能な状態となる。

【0255】次にステップS241において、コミュニケーションプログラムは、セッションが確立されている他のコミュニケーションプログラムに対して、情報収集モジュールを起動する要求を送信する。これにより、ステップS242において、これら他のコミュニケーションプログラム（クライアント側のコミュニケーションプログラム）上でそれぞれ情報収集モジュールが起動する。この後、クライアント側のコミュニケーションプログラムは、サーバ側で設問等が設定されるまで待機状態となり、図24に示した情報収集ウィンドウ220を表示する。

【0256】次にステップS243において、サーバ側のコミュニケーションプログラムは、ユーザによって設問入力領域S221等に設問等が正しく入力され、設問や回答基準などが決定されたか否かを判定する。この判定の結果、設問等が全て入力され、決定されている場合には処理をステップS244に進め、設問等が未だ決定されていない場合には処理をステップS242に戻して、ステップS243における判定処理を繰り返す。

【0257】ステップS244において、コミュニケーションプログラムは、図29に示すテキストデータの共有処理を行う。このテキストデータの共有処理においては、サーバ側のコミュニケーションプログラムとクライアント側のコミュニケーションプログラムとの双方で、図29に示すようにテキストの送信処理とテキストの受信処理とが共に行われる。

【0258】ここで、テキストの送信処理としては、所定の時間だけ待ち状態とした後に（ステップA50）、コメント入力領域S225にユーザによってテキストが入力され、第1乃至第3の入力先選択ボタンS226～S228が適切に選択されることにより、入力されたテキストを第1のテキスト表示領域S229と第2のテキ

スト表示領域S230のうちの何れに記入するかが決定されているか否かを判定する（ステップA51）。そして、テキストが入力され、このテキストの記入対象が決定している場合には、入力されたテキスト、当該コミュニケーションプログラムを操作するユーザ毎に設定されたユーザID、及びテキストの記入対象を示す情報を含むコメントデータを、セッションが確立された全てのコミュニケーションプログラムに対して送信する（ステップA52）。また、テキストの入力や記入対象の決定が未だ行われていない場合には、処理をステップA50に戻す。

【0259】また、テキストの受信処理としては、所定の時間だけ待ち状態とした後に（ステップB50）、コメントデータを受信したか否かを判定する（ステップB51）。そして、受信している場合には、コメントデータに含まれる情報に基づいて、第1のテキスト表示領域S229と第2のテキスト入力領域S230とのうちの一方に、受信したテキストを記入して表示する（ステップB52）。このとき、ユーザIDを参照することにより、このテキストを入力したユーザに設定されたユーザ名を併せて記入・表示するとしてもよい。これにより、記入されるテキストがどのユーザにより入力されたものであるかを見分けることができる。また、ステップB51において、コメントデータが受信されていない場合には、処理をステップB50に戻す。

【0260】以上のようなステップS244におけるテキストデータの共有処理を行った後に、コミュニケーションプログラムは、ステップS245において図30に示す座標データの共有処理を行う。この座標データの共有処理においては、サーバ側のコミュニケーションプログラムとクライアント側のコミュニケーションプログラムとの双方で、図30に示すように座標データの送信処理と座標データの受信処理とが共に行われる。

【0261】ここで、座標データの送信処理としては、所定の時間だけ待ち状態とした後に（ステップA60）、当該コミュニケーションプログラムのユーザに対応した顔画像フレームS110が回答領域S231内で移動され、この顔画像フレームS110の座標が変更されたか否かを判定する（ステップA61）。そして、座標が変更されている場合には、顔画像フレームS110の座標を示す座標データと、当該ユーザに固有のユーザIDとを、セッションが確立された全てのコミュニケーションプログラムに対して送信する（ステップA62）。また、座標が変更されていない場合には、処理をステップA60に戻す。

【0262】また、座標データの受信処理としては、所定の時間だけ待ち状態とした後に（ステップB60）、座標データ及びユーザIDを受信したか否かを判定する（ステップB61）。そして、受信している場合には、ユーザIDを参照することにより送信元のユーザを特定

し、このユーザに対応した顔画像フレーム（例えば顔画像フレームS111a又は顔画像フレームS111bなど）を座標データが示す位置まで回答領域S231内で移動させて表示する。また、座標データ及びユーザIDを受信していない場合には、処理をステップB60に戻す。

【0263】以上のようなステップS245における座標データの共有処理を行った後に、コミュニケーションプログラムは、図28に示すステップS246において、サーバ側となるユーザによって設定された回答までの制限時間が経過したか、或いは全てのユーザが回答同意ボタンS234を選択したか否か（すなわち、最終的な回答を行う準備が整ったか否か）を判定する。この判定の結果、準備が整っている場合には処理をステップS247に進め、準備が整っていない場合には処理をステップS244に戻す。

【0264】ステップS247において、コミュニケーションプログラムは、情報収集ウィンドウ220の表示内容を図26の状態とし、当該コミュニケーションプログラムのユーザ以外のユーザに対応する顔画像フレーム（本例では顔画像フレームS111a及び顔画像フレームS111b）を非表示とする。

【0265】次にステップS248において、コミュニケーションプログラムは、当該コミュニケーションプログラムのユーザにより、顔画像フレームS110の回答領域S231内での座標が決定されると、この顔画像フレームS110の座標とユーザIDとを、例えば図3に示した座標データD1に相当する構造のデータとしてサーバ側のコミュニケーションプログラムに対して送信する。なお、サーバ側のコミュニケーションプログラムにおいては、自分自身に向けて送信することとなるが、コミュニケーションプログラムは実際にはモジュール単位で動作しているため、この場合にはモジュール間で送信が行われることとなる。

【0266】次にステップS249において、サーバ側のコミュニケーションプログラムは、各ユーザから送信された各々の座標データを受信して、全ての座標データに関して集計処理又は分析処理を行い、その結果をセッションが確立された全てのコミュニケーションプログラムに対して送信する。これにより、情報収集処理においてサーバ側及びクライアント側として動作する全てのコンピュータ装置10の表示画面上に、図27に示した状態の情報収集ウィンドウ220が表示される。

【0267】本例に係るコミュニケーションシステムにおいては、図1を参照して説明した場合と同様に、コメント入力領域S225にテキストを入力した状態で第1乃至第3の入力選択ボタンS226、S227、S228のいずれかを選択するという極めて簡便な操作により、第1のテキスト表示領域S229及び第2のテキスト表示領域S230のうちから任意のテキスト表示領域

を入力対象として選択し、このテキスト表示領域に対してテキストを入力することができる。したがって、テキスト表示領域が2つ設定されているのに対して、ユーザによってテキストの入力操作が行われるコメント入力領域S225は1つだけ用意するだけで十分となり、入力領域と表示領域と確定ボタンとが一組とされた従来の入力方式を用いる場合と比較して、画面上の構成物を減らすことができる。したがって、表示画面の美観が向上し、ユーザに対して煩雑な印象を与えることがない。

【0268】また、コメント入力領域S225にテキストが入力されていない状態で第1乃至第3の入力選択ボタンS226、S227、S228のいずれかが選択されると、選択された入力選択ボタンが選択継続状態となり、これ以降入力されたテキストが当該入力先選択ボタンに対応したテキスト表示領域に対して入力されることとなる。したがって、特定のテキスト表示領域に対して連続して入力（書き込み）を行う場合においても、入力を行う度に入力先選択ボタンを選択操作する必要がない。すなわち、特定のテキスト表示領域に対する連続した入力操作を極めて円滑に行うことができる。

【0269】したがって、本例に係るコミュニケーションシステムを利用することにより、各ユーザ自身の意思や立場を明確に表現しながら、極めて良好な操作性を確保しながら柔軟に意思や感情をユーザ間で交換して会議や討論を行うことができる。

【0270】なお、上述の説明においては、設問に対して最終的な回答を行う際に他のユーザに対応した顔画像フレームが非表示となり、各ユーザが他のユーザの回答状況を個別に知ることができない場合について例示したが、例えば他のユーザの顔画像フレームを非表示とせず、他のユーザの回答状況を鑑みながら最終的な回答を行う構成としてもよい。

#### 【0271】（3）他の実施の形態

なお、上述においては、本発明の実施の形態として、コミュニケーションシステムを構成する各情報処理装置上で実行処理されるコミュニケーションプログラムに注目して説明したが、本発明は、このようなコミュニケーションプログラムが実行処理されることにより実現されるコミュニケーションシステム、上述したコミュニケーションプログラムにより実行される処理に相当する手続きが行われることにより実現されるコミュニケーション方法、或いは、上述したコミュニケーションプログラムにより実行される処理に相当する手続きが他のソフトウェア又はハードウェアの手法により実現される情報処理装置に対して、広く適用することができることは述べるまでもない。

【0272】また、上述したコミュニケーションプログラムにより実行される処理に相当する手続きを所望の電子機器で実行処理させるソフトウェアプログラムを各種の記録媒体に格納して提供するとしてもよい。

【0273】

【発明の効果】本発明によれば、一時記憶領域に対して情報が入力された下でいずれかの入力先選択ボタンを選択することによって、選択された入力先選択ボタンに対応した情報記憶領域に当該情報が格納される。また、一時記憶領域に対して情報が入力されていない状態の下で入力先選択ボタンが選択された場合には、この入力先選択ボタンが選択継続状態となり、これ以降入力された情報が当該入力先選択ボタンに対応した情報記憶領域に対して格納されることとなる。

【0274】したがって、入力された情報の格納対象が複数設定されている場合であっても、自然な操作で円滑に且つ連続的に情報の入力操作を行なうことができる。これにより、本発明を適用して、例えば掲示板システムやチャットシステムを構築した場合に、テーマや意見に応じて複数配設された掲示板或いはチャットルーム等に対して、簡便な操作で極めて柔軟に書き込み操作或いは発言操作を行うことができる。

【図面の簡単な説明】

【図1】本発明の最も基本的な構成とされた実施の形態として示すチャットシステムにおける画面例を示す模式図である。

【図2】同チャットシステムで用いられる入力先選択ボタンの状態が遷移する様子を示す状態遷移図である。

【図3】同チャットシステムで用いられる入力先選択ボタンの状態に応じて、テキストの入力先を選択する動作を示すフローチャートである。

【図4】同チャットシステムで用いられる入力先選択ボタンの状態に応じて、テキストの入力先を選択する動作を示すフローチャートである。

【図5】本発明の実施の形態として示すコミュニケーションシステムの全体的な基本構成を示す概略図である。

【図6】同コミュニケーションシステムに用いられるコンピュータ装置の構成を示す機能ブロック図である。

【図7】同コンピュータ装置上で実行処理されるコミュニケーションプログラムのモジュール構造を示す模式図である。

【図8】同コミュニケーションプログラムによりデータが送受信されることにより、当該コミュニケーションプログラムを構成するアプリケーションモジュールが起動される場合について説明する模式図である。

【図9】同コミュニケーションプログラムにおいて用いられる接続設定情報のデータ構造を示す模式図である。

【図10】同コミュニケーションプログラムが実行されることによる全体的な処理の流れについて示すフローチャートである。

【図11】同コミュニケーションプログラムが実行されることによる全体的な処理の流れについて示すフローチャートである。

【図12】同コミュニケーションプログラムで用いられ

る機能モジュールリストのデータ構造を示す模式図である。

【図13】同コミュニケーションプログラムにおいて起動されるサーバモジュールによる処理の流れについて示すフローチャートである。

【図14】同コミュニケーションプログラムにおいて起動されるサーバモジュールによる処理の流れについて示すフローチャートである。

【図15】同コミュニケーションプログラムにおいて起動されるサーバモジュールで用いられるユーザリストのデータ構造を示す模式図である。

【図16】同コミュニケーションプログラムが実行されることによりコンピュータ装置の画面上に表示されるユーザ情報設定ウィンドウの一例を示す模式図である。

【図17】同コミュニケーションプログラムが実行されることによりコンピュータ装置の画面上に表示される基本表示ウィンドウの一例を示す模式図である。

【図18】同コミュニケーションプログラムが実行されることによりコンピュータ装置の画面上に表示される縮小表示ウィンドウの一例を示す模式図である。

【図19】同コミュニケーションプログラムにクライアントが接続され、基本表示ウィンドウ内にクライアントに対応した画像が表示された状態の一例を示す模式図である。

【図20】同コミュニケーションプログラムにおいて、ユーザ側から文字データ（テキスト）を送信する場合における基本表示ウィンドウの一例を示す模式図である。

【図21】同コミュニケーションプログラムにおいて、クライアント側から送信された文字データ（テキスト）が表示された場合における基本表示ウィンドウの一例を示す模式図である。

【図22】同コミュニケーションプログラムが実行されることによりコンピュータ装置の画面上に表示されるツール表示ウィンドウの一例を示す模式図である。

【図23】同コミュニケーションプログラムが実行されることによりコンピュータ装置の画面上に表示される情報収集ウィンドウの一例を示す模式図である。

【図24】同コミュニケーションプログラムが実行されることによりコンピュータ装置の画面上に表示される情報収集ウィンドウの一例を示す模式図である。

【図25】同コミュニケーションプログラムが実行されることによりコンピュータ装置の画面上に表示される情報収集ウィンドウの一例を示す模式図である。

【図26】同コミュニケーションプログラムが実行されることによりコンピュータ装置の画面上に表示される情報収集ウィンドウの一例を示す模式図である。

【図27】同コミュニケーションプログラムが実行されることによりコンピュータ装置の画面上に表示される情報収集ウィンドウの一例を示す模式図である。

【図28】同コミュニケーションプログラムにおいて情

報収集処理が行われる場合における処理の流れについて示すフローチャートである。

【図29】同情報収集処理において行われるテキストデータの共有処理についての流れを示すフローチャートである。

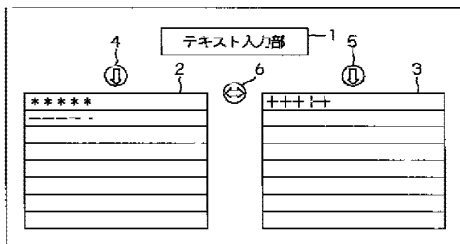
【図30】同情報収集処理において行われる座標データの共有処理についての流れを示すフローチャートである。

【符号の説明】

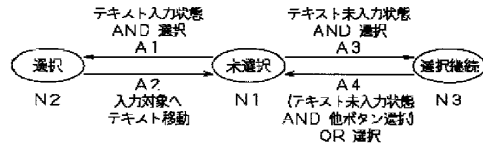
1 テキスト入力領域、2 第1のチャット内容表示領域、3 第2のチャット内容表示領域、4 第1の入力先選択ボタン、5 第2の入力先選択ボタン、6 第3の入力先選択ボタン、10 コンピュータ装置、11 インターネット、20 CPU、21 RAM、50 インターフェースモジュール、51 コアモジュール、

52 基本モジュール、53 アプリケーションモジュール、54 GUIモジュール、110 基本表示ウィンドウ、S110 ユーザ顔画像フレーム、S111 クライアント顔画像フレーム、S112 機能選択ボタン、S113 操作アイコン、S114 ステータス表示領域、S115 テキスト入力領域、S116 テキスト表示領域、120 縮小表示ウィンドウ、150 ツール表示ウィンドウ、S150 機能選択ボタン、220 情報収集ウィンドウ、S220 情報収集領域、S225 コメント入力領域、S226 第1の入力先選択ボタン、S227 第2の入力先選択ボタン、S228 第3の入力先選択ボタン、S229 第1のテキスト表示領域、S230 第2のテキスト表示領域、S231 回答領域

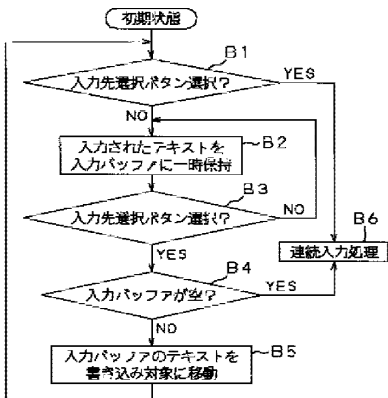
【図1】



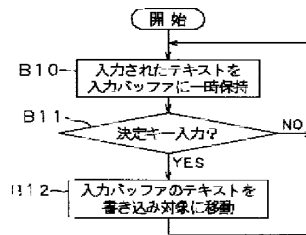
【図2】



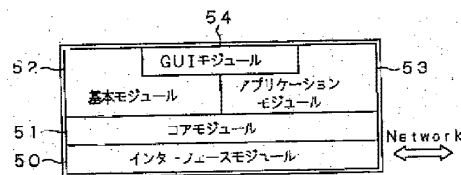
【図3】



【図4】



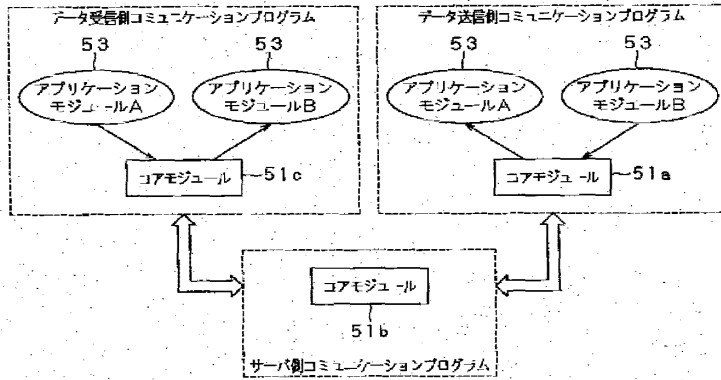
【図7】



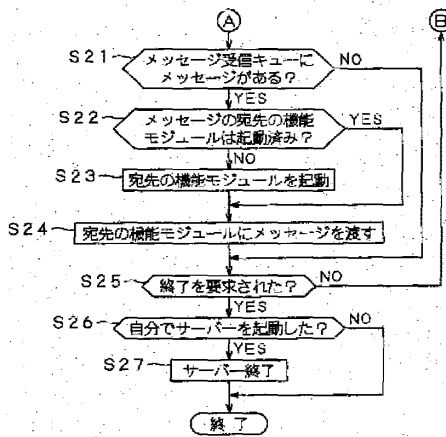
コミュニケーションプログラムのモジュール構造



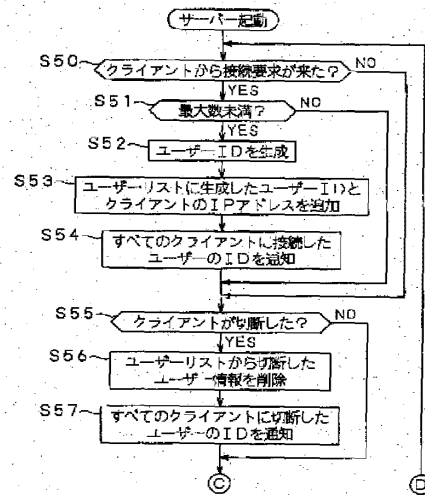
【図8】



【図11】



【図13】



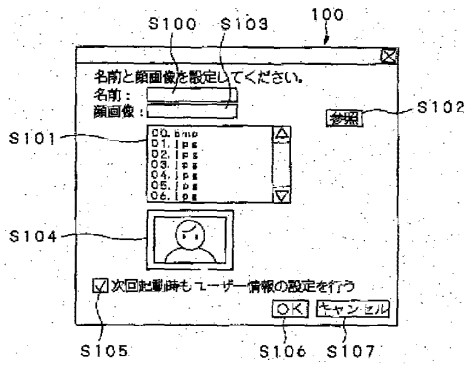
【図15】

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0x00001234	Sato	192.168.1.2
...	...	...

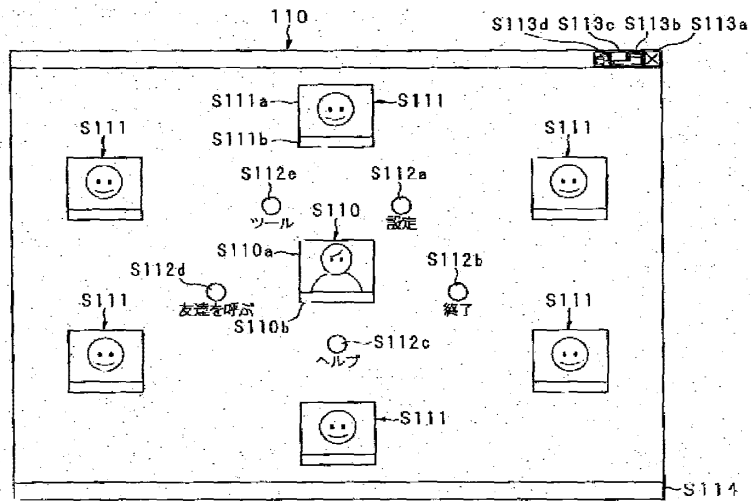
ユーザーリスト



【図16】

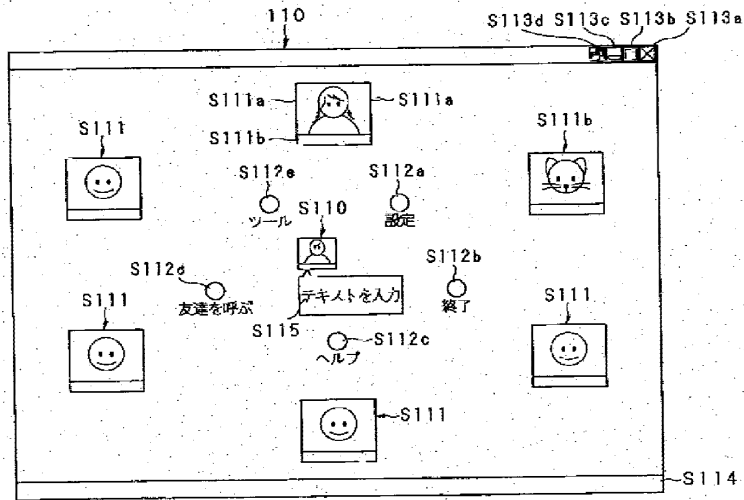


【図17】

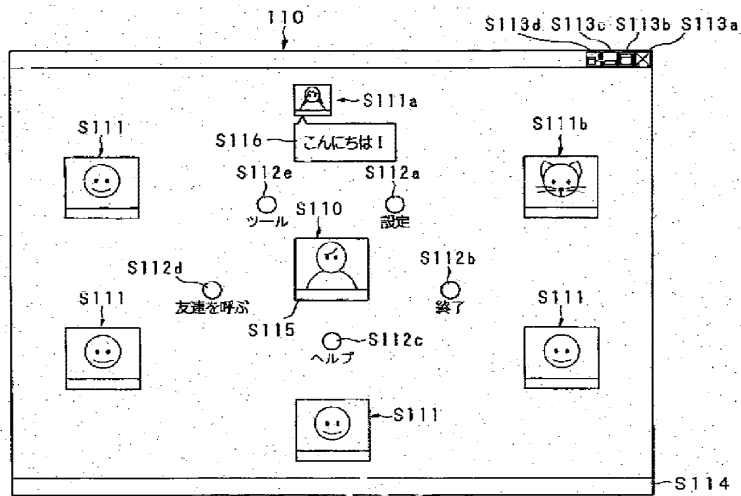




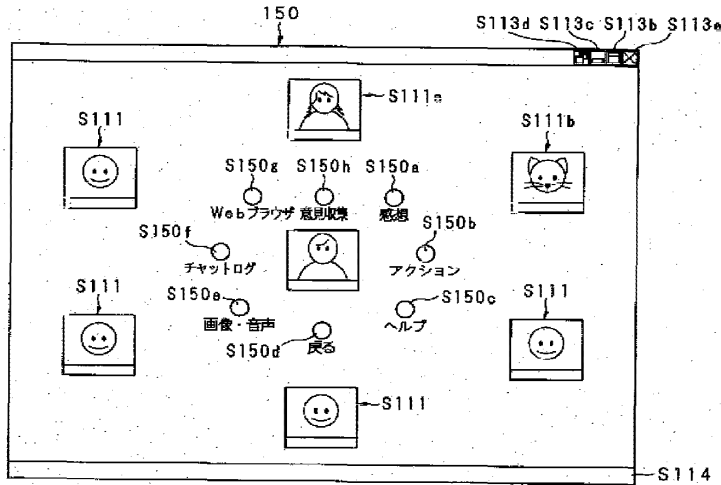
【図20】



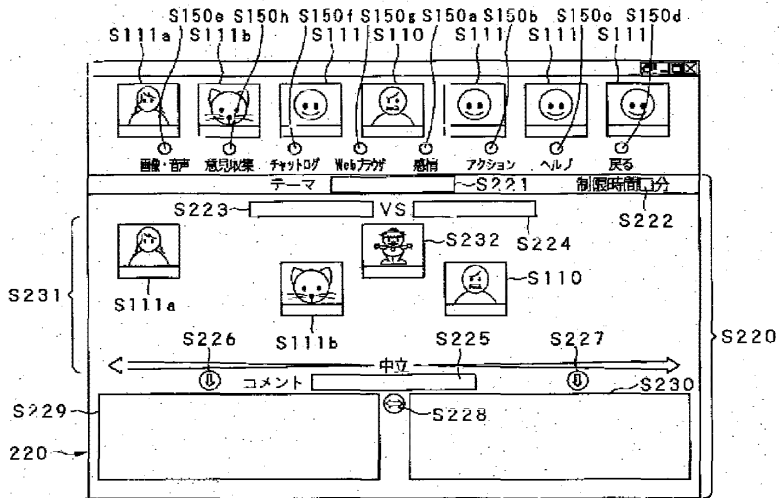
【図21】



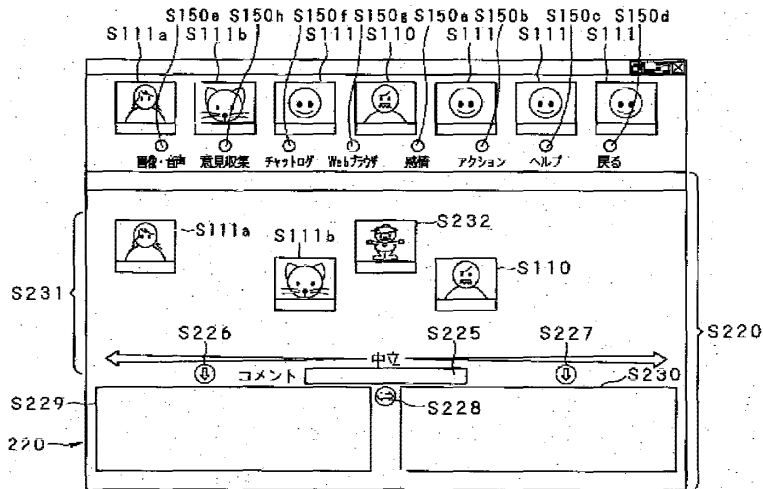
【図22】



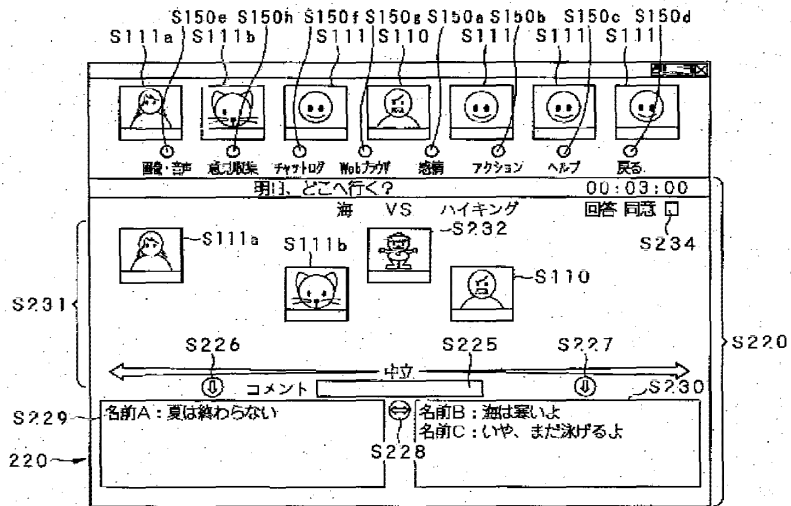
【図23】



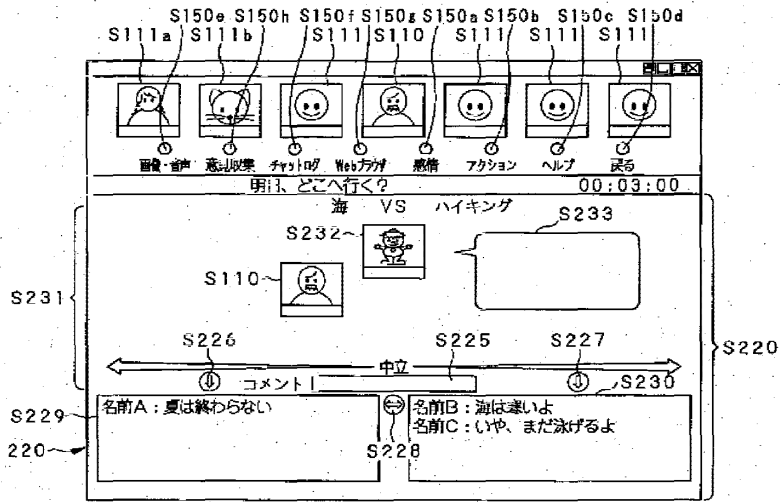
【図24】



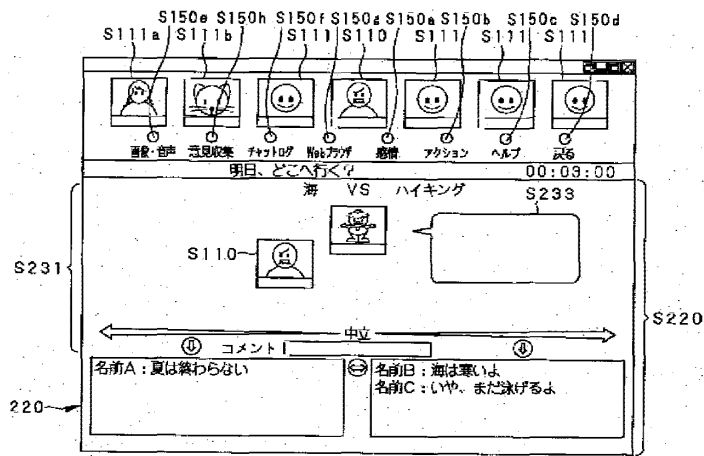
【図25】



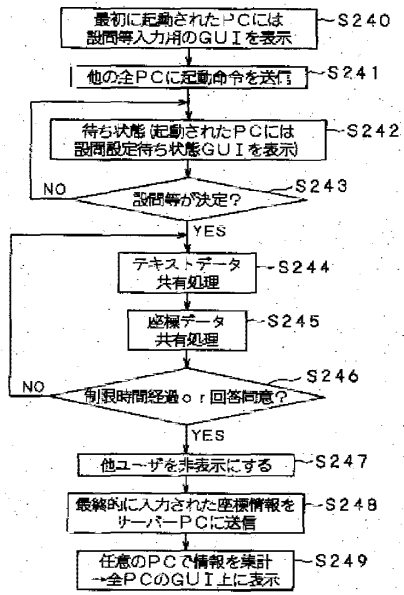
【図26】



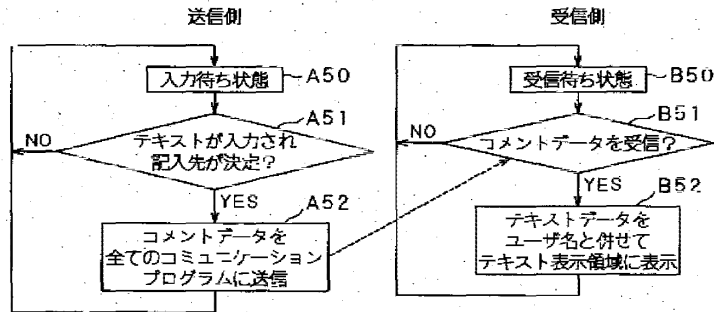
【図27】



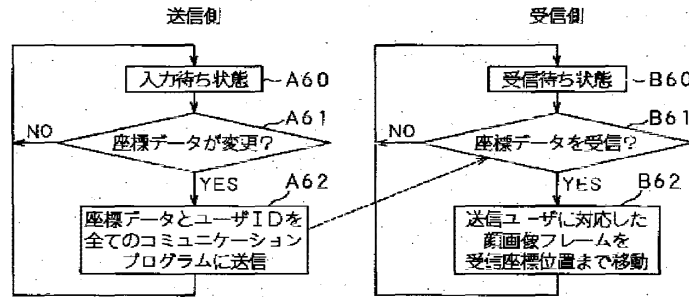
【図28】



【図29】



【図30】





## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	10784781			
<b>Filing Date:</b>	24-Feb-2004			
<b>Title of Invention:</b>	Previewing a new event on a small screen device			
First Named Inventor/Applicant Name:	Gerhard D. Klassen			
<b>Filer:</b>	Michael W. Van Eesbeek/Lisette Ruiz			
<b>Attorney Docket Number:</b>	16813-1US			
Filed as Large Entity				
<b>Utility Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
Post-Allowance-and-Post-Issuance:				
<b>Extension-of-Time:</b>				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
Submission- Information Disclosure Stmt	1806	1	180	180
<b>Total in USD (\$)</b>				<b>180</b>

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	3774272
<b>Application Number:</b>	10784781
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	2200
<b>Title of Invention:</b>	Previewing a new event on a small screen device
<b>First Named Inventor/Applicant Name:</b>	Gerhard D. Klassen
<b>Customer Number:</b>	20988
<b>Filer:</b>	Michael W. Van Eesbeek/Lisette Ruiz
<b>Filer Authorized By:</b>	Michael W. Van Eesbeek
<b>Attorney Docket Number:</b>	16813-1US
<b>Receipt Date:</b>	13-AUG-2008
<b>Filing Date:</b>	24-FEB-2004
<b>Time Stamp:</b>	15:15:16
<b>Application Type:</b>	Utility under 35 USC 111(a)

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<b>File Listing:</b>					
<b>Document Number</b>	<b>Document Description</b>	<b>File Name</b>	<b>File Size(Bytes) /Message Digest</b>	<b>Multi Part /.zip</b>	<b>Pages (if appl.)</b>
1	Information Disclosure Statement Letter	IDS_Cover_letter.pdf	95971	no	1
			43369c0b2cb3bbd757a54ad9f894df2bd2167d08		
<b>Warnings:</b>					
<b>Information:</b>					
2	Information Disclosure Statement (IDS) Filed (SB/08)	IDS_Form.PDF	1269310	no	4
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3	Foreign Reference	JP_2003-271277.PDF	2162983	no	38
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4	Fee Worksheet (PTO-06)	fee-info.pdf	8180	no	2
			690a77b72ee3e210cb812f889982521ba981751f		
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			3536444		
<p><b>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.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  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.</p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  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.</p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  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.</p>					



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Toronto, August 13, 2008

United States Patent and Trademark Office  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
U.S.A.

Dear Sir/Madam:

**RE: U.S. Patent Application No. 10/784,781**  
**Title: PREVIEWING A NEW EVENT ON A SMALL SCREEN DEVICE**  
**Inventors: Gerhard D. Klassen et al.**  
**Our Ref: 16813-1US**

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Along with this letter, the Applicant submits an Information Disclosure Statement (IDS) for the above-noted application. The IDS includes U.S. publication references and a Japanese foreign citation from a Japanese

Please have the IDS recorded against the above-noted application.

Yours very truly,  
**OGILVY RENAULT LLP**

/mve/

Michael Van Eesbeek  
Regn. No. 61,951  
MVE:lr

Enclosures

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,781	02/24/2004	Gerhard D. Klassen	16813-1US	2200
20988	7590	10/27/2008	EXAMINER	
OGILVY RENAULT LLP 1981 MCGILL COLLEGE AVENUE SUITE 1600 MONTREAL, QC H3A2Y3 CANADA			HEFFINGTON, JOHN M	
			ART UNIT	PAPER NUMBER
			2179	
			MAIL DATE	DELIVERY MODE
			10/27/2008	PAPER

**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.



### **DETAILED ACTION**

This action is in response to amendment filed 3 July 2008. Claims 1-20 have been canceled. Claims 21-41 have been added. Claims 21 and 33 have been amended. Claims 21-41 are pending and have been considered below.

### ***Response to Arguments***

1. Applicant's arguments, see Applicant's Arguments/Remarks, filed 3 July 2008, with have been fully considered and are persuasive. The examiner agrees that the examiner did not address all of the arguments filed by the applicant on 28 January 2008 in the Non-Final Office Action filed 4 April 2008. Therefore, the examiner is issuing a second Non-Final Office Action.

#### Remarks:

The applicant argues that the Nokia 9210 Communicator is not analogous to the claimed wireless communication device having a small display, that the Nokia 9210 Communicator has a screen and form factor that is substantially larger than the typical personal digital assistant or cellular phone in use today, or at the time of filing of Applicant's application (February 24, 2004), as evidenced by the filing date of Salmimaa (April 26, 2001, or almost three years prior), and that one skilled in the art would appreciate that wireless communication devices shrank substantially of the period form 2001 to 2004. The examiner respectfully disagrees. The applicant has made these assertions without any supporting evidence. The only references to "small display size"



in the instant application is in the description at page 2, lines 5-7, and in claims 21 and 33. Figures 3-8 disclose display screens but give no indication of the relative size of the screens. On page 2 of the included description of the Nokia 9210 Communicator, it is stated that the "communicator consists of two parts: the phone on the device cover and the communicator interface under the cover." On page 6 of the included description of the Nokia 9210 Communicator, a person is shown holding a Nokia 9210 Communicator like a cell phone. On page 7 of the included description of the Nokia 9210 Communicator, the dimensions are given as 158 mm (6.22 in) x 56 mm (2.20 in) x 27 mm (1.06 in). According to the figure on page 3 of the included description of the Nokia 9210 Communicator, the Communicator screen must necessarily be smaller than 158 mm (6.22 in) x 56 mm (2.20 in). It is the examiners opinion that it is not unreasonable to conclude that one of ordinary skill in the art would consider the Communicator screen to be a small screen. The specification provides no definition for a "small display size" or any criteria for judging a "small display size" apart from a display size of any other size. Therefore, the examiner maintains the position that the mobile terminal cited in Salmimaa and the Nokia 9210 Communicator are analogous art.

The applicant argues that the icon in Salmimaa used to launch an application is associated with either a hyperlink or a document and do not represent respective applications. The examiner respectfully disagrees. Salmimaa discloses that "icons can correspond to application programs" (abstract). Further, Salmimaa discloses that icons "may comprise a corporate logo or other graphic symbol corresponding to an

application, a hyperlink to a Web page, an informational message, a document, a pre-populated email inquiry, or any of various other types of objects." Salmimaa also discloses that an application launcher "launches an application associated with the selected icon in response to further user input." (paragraph 0038) Salmimaa then cites an example of starting a web browser application if the particular icon has an associated hyperlink or launching a document viewer or editor if the icon represents a document (paragraph 0038). Salmimaa only uses the instances of selecting a hyperlink to launch a web browser and selecting a document icon to launch a document viewer or editor as examples and in no way limits the disclosed icons to hyperlinks and documents or the applications to a web browser and document viewer or editor. Therefore, the examiner has interpreted the disclosed icons to mean any kind of icon representing any kind of application. Further, the user input disclosed to launch the associated application is not specifically limited, and could, therefore, be interpreted to mean any well known method of selecting an icon to launch an application.

The applicant argues that no intermediate component, such as the application launcher disclosed in Salmimaa, is needed in the claimed invention. The examiner respectfully disagrees. Claims 21 and 33 do not claim that an intermediate component is not needed to launch an application when a respective icon is selected and neither is it a stated objective of the instant invention to be able to launch an application without the need for an intermediate component, such as an application launcher, when a respective icon is selected. The claims simply recite that each application icon is

"invokable to launch its respective application." The application launcher in Salmimaa which is invoked in response to further user input on a selected icon (paragraph 0038) enables the icon to be invokable in that further user input on the selected icon invokes or launches an application.

The applicant argues that there is no reason why one skilled in the art would be motivated to modify the teachings of Salmimaa with the teachings of Hellebust. The examiner respectfully disagrees. Salmimaa discloses a system and method wherein a mobile terminal receives messages from a number of entities and icons corresponding to the messages are ranked according to one or more context values and displayed using a display format that indicates the degree of matching between characteristics associated with the icon and one or more of the context values (paragraph 0026).

Other criteria can be used to filter and display the icons corresponding to such entities and messages (paragraph 0027). The icons may correspond to an email application (paragraph 0031). Hellebust discloses a filtered in-box for voice mail, email, pages, web-based information, and faxes (title). Hellebust further discloses a system for displaying, organizing, and prioritizing the incoming information on a wireless device, wherein the wireless device can display the number of internet information alerts that have been received by the wireless device during a specified time period (abstract).

Both Salmimaa and Hellebust receive, filter and display information related to messages received. The filtering, displaying and organizing criteria is user definable in both Salmimaa (paragraph 0025) and Hellebust (paragraph 0014). One could be motivated

to modify Salmimaa with Hellebust to give Salmimaa the capability to further classify and categorize the received messages and to indicate the number of messages received related to a specific application.

The applicant argues that the mobile terminal of Salmimaa is fundamentally different from the wireless communication device presently claimed. The examiner respectfully disagrees. The instant independent claims recite the limitations of a wireless communication device as follows:

21. (Currently Amended) A method for providing notifications of new events on a **wireless communication device having a small display, the wireless communication device having a graphical user interface 'GUI' displayed on a display of the wireless communication device**, the GUI having a main screen comprising an application portion for displaying icons for respective applications ~~or functions~~ for execution on the wireless communication device and a status portion for displaying wireless communication device status information, the method comprising:

33. (Currently Amended) **A graphical user interface 'GUI' for a wireless communication device having a small display and a controller coupled to a memory**, the memory storing a plurality of applications for managing respective events, the graphical user interface 'GUI' being provided for the applications and displayed on a display, the GUI comprising:

The limitations of the claimed communication device are as follows:

1. wireless
2. small display
3. graphical user interface (GUI)
4. controller
5. memory

The mobile terminal of Salmimaa is characterized by the following features:

1. wireless (paragraph 0034)
2. small display (figure 4)
3. GUI (figure 4, claim 30)
4. controller (microprocessor or other computing device) (paragraph 0034)
5. memory (paragraph 0034)

It is the opinion of the examiner that the communication device of the instant invention and the mobile terminal of Salmimaa are indeed fundamentally the same.

The applicant argues that Salmimaa does not disclose or suggest displaying icons in an application portion of the screen because the screen of Salmimaa is sufficiently large such that the icons are arranged along an edge of the screen. The examiner respectfully disagrees. Salmimaa discloses that the mobile terminal of Salmimaa may comprise a cellular telephone (paragraph 0024). If Salmimaa was concerned with displaying icons on screens with sufficiently large sizes, then Salmimaa would not have identified cellular phones as constituting an embodiment of the invention. Salmimaa goes on to disclose that the icons can be presented in a circular, spiral, or other two-dimensional pattern radiating outward from a center point, such that icons in the center area are larger (or more prominent) than icons that radiate outwardly from the center (paragraph 0024). Salmimaa makes no mention of screen size in determining a display

pattern of the icons. It is the citation of the Nokia 9210 Communicator (paragraph 0024) that introduces the division of the screen into status area and another area (Nokia 9210 Communicator, included page 3). Salmimaa discloses that the icons can represent application programs (paragraph 0031). Therefore, it is a clear embodiment of Salmimaa for the mobile terminal to have a status area for displaying wireless communication device status information and an application program icon area.

The applicant argues that Salmimaa does not teach or suggest a wireless communication device having both an application portion for displaying icons and a status portion for displaying wireless communication device information. The examiner respectfully disagrees. Salmimaa discloses that the icons can represent application programs (paragraph 0031). It is the citation of the Nokia 9210 Communicator (paragraph 0024) that introduces the division of the screen into status area and another area (Nokia 9210 Communicator, included page 3). Therefore, it is a clear embodiment of Salmimaa for the mobile terminal to have a status area for displaying wireless communication device status information and an application program icon area.

The applicant argues that the change of size of the icons disclosed by Salmimaa is not in response to a new event in respect of one of the applications, as claimed in the instant invention. The examiner respectfully disagrees. Salmimaa explicitly discloses that the displayed icons may be application icons (abstract, paragraph 0031). Further, Salmimaa discloses:

Art Unit: 2179

Each content provider transmits messages that can be received by mobile terminal 401. Messages may include information such as the geographic location of an establishment; proximity of the establishment to a particular mobile user or other geographic location; price information; corporate logos; pictographic icons; hyperlinks to Web pages; advertisements (including audio, video, or text); entertainment services (e.g., music, videos, and the like); indicators identifying grades of service (e.g., AAA ratings, hotel "star" ratings, restaurant rankings, and the like); availability of services (e.g., indicating whether a hotel has vacancies; that a particular restaurant is crowded; or the average waiting time for service at a particular restaurant); personal e-mails from friends or family, or any other type of information (paragraph 0035).

As can be seen above, Salmimaa discloses that the received messages can be of various types, images (logos or icons), hyperlinks, text advertisements, music, video, email, etc. Each of these types of messages would be manipulated by a different application program, e.g. graphics program, web browser, text display, music player, video player, email application, etc. A received message for one of these applications would be a new event related to that application. Salmimaa discloses that when a new message, i.e. a new event, is received, the appropriate icon is visually altered in some way to indicate that the new message, i.e. new event, has been received (paragraph 0037).

***Claim Rejections - 35 USC § 103***

2. 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 negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 21-24, 29, 30, 33, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmimaa (US 2002/0160817 A1) in view of Nokia 9210 Communicator

([http://www.nokia.com/EUROPE\\_NOKIA\\_COM\\_3/r2/support/tutorials/9210i/english/intro.html](http://www.nokia.com/EUROPE_NOKIA_COM_3/r2/support/tutorials/9210i/english/intro.html)).

Claim 21: Salmimaa discloses a method for

- a. providing notifications of new events on a wireless communication device having a small display (paragraphs 0024, 0026, figure 4),
- b. the wireless communication device having a graphical user interface 'GUI' displayed on a display of the wireless communication device (paragraph 0024, figure 1),
- c. the GUI having a main screen comprising an application portion for displaying icons for respective applications for execution on the wireless communication device (paragraph 0009, figure 1),
- d. the method comprising: providing on the main screen and in the application portion a plurality of application icons each representing an application for



- managing respective events on the wireless device and each being invocable to launch its respective application (paragraphs 0009, 0024, 0026, 0038, figure 1),
- e. the application icons occupying a major portion of the main screen (paragraphs 0009, 0024, figure 1); and
  - f. in response to a new event in respect of one of the applications, visually modifying the respective application icon in the application portion of the main screen to notify of the new event (paragraph 0013, 0027); wherein
  - g. the application icons are maintained on the main screen continuously (paragraphs 0009 and 0024),

but does not disclose a status portion for displaying wireless communication device status information. However, Salmimaa discloses that the mobile terminal could be a Nokia 9210 Communicator (paragraph 0024). As disclosed in the included reference material for the Nokia 9210 Communicator, the Nokia 9210 includes a status portion for displaying wireless communication device status information (pages 3 and 4).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to add a status portion for displaying wireless communication device status information to Salmimaa. One could have been motivated to add a status portion for displaying wireless communication device status information to Salmimaa because, as noted in paragraph 0024 of Salmimaa, the mobile terminal may comprise a Nokia 9210 Communicator, therefore, the features of the Nokia 9210 are necessarily included in the limitations of the Salmimaa.

Claim 33: Salmimaa discloses

- a. a graphical user interface 'GUI' for a wireless communication device (paragraph 0024, figure 1)
- b. having a controller coupled to a memory (figure 4),
- c. the memory storing a plurality of applications for managing respective events (paragraph 0009, figure 4),
- d. the graphical user interface 'GUI' being provided for the applications and displayed on a display (paragraphs 0009, 0024, 0026, figure 1) , the GUI comprising:
  - e. a main screen for displaying on the display, the main screen comprising an application portion for displaying a plurality of application icons associated with a respective application in the plurality of applications and each being invocable to launch its respective application (paragraphs 0009, 0024, 0026, 0038, figure 1),
  - f. the application icons occupying a major portion of the main screen (paragraphs 0009, 0024, 0026, figure 1);
  - g. at least one monitoring component to determine the occurrence of new events of the applications (paragraphs 0009, 0024, 0026, figure 1); and
  - h. at least one icon modifying component to visually modify at least one of the application icons in the application portion of the main screen in response to a new event in respect of at least one of the applications to notify of the new event (paragraph 0013, 0027, figure 4); wherein

- i. the application icons are maintained on' the main screen continuously (paragraphs 0009 and 0024).

but does not disclose a status portion for displaying wireless communication device status information. However, Salmimaa discloses that the mobile terminal could be a Nokia 9210 Communicator (paragraph 0024). As disclosed in the included reference material for the Nokia 9210 Communicator, the Nokia 9210 includes a status portion for displaying wireless communication device status information (pages 3 and 4).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to add a status portion for displaying wireless communication device status information to Salmimaa. One could have been motivated to add a status portion for displaying wireless communication device status information to Salmimaa because, as noted in paragraph 0024 of Salmimaa, the mobile terminal may comprise a Nokia 9210 Communicator, therefore, the features of the Nokia 9210 are necessarily included in the limitations of the Salmimaa.

Claims 22 and 38: Salmimaa and Nokia 9210 Communicator disclose a method and GUI as in claims 21 and 33 and and further discloses an application launcher that launches an application associated with a selected icon in response to further user input (paragraph 0038).

Claim 23: Salmimaa and Nokia 9210 Communicator disclose a method of claim 21 featuring an icon of a user more prominently when an email from that user is received, i.e. monitoring for new email messages (events) (paragraph 0045).

Claim 24: Salmimaa and Nokia 9210 Communicator disclose a method of claim 21 modifying application icons in response to the messages (paragraph 0013), thereby determining which modification should be made to the icon.

Claim 29: Salmimaa and Nokia 9210 Communicator disclose a method of claim 21 for an application launcher that launches an application associated with a selected icon in response to further user input, for example, a web browser or a document (paragraph 0038).

Claims 30 and 39: Salmimaa and Nokia 9210 Communicator disclose a method and a Graphical User Interface (GUI) for a mobile terminal of claims 21 and 33 that includes a microprocessor and a memory that communicates with one or more content providers via a wireless means (paragraph 0034).

5. Claims 25-28, 31, 32, 34-37, 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmimaa (US 2002/0160817 A1) in view Nokia 9210 Communicator disclose and further in view of Hellebust (US 2005/0248437 A1).

Claims 25 and 34: Salmimaa and Nokia 9210 Communicator disclose a method and a graphical user interface (GUI) modifying application icons in response to the messages (paragraph 0013) as in claims 24 and 33 above, thereby determining which modification should be made to the icon, but does not disclose keeping a count of the number of messages received for each icon. Hellebust discloses a method showing the number of messages received under each of the categories (paragraph 0017). Therefore, it would have been obvious to one having ordinary skill in the art for Salmimaa to include a message count for each icon. One would have been motivated to include a message count for each icon to because some of the application programs cited in Salmimaa are capable of receiving multiple messages, for example emails, therefore, it would have been useful in Salmimaa do indicate the number of new email messages received in association with the email application icon.

Claims 26 and 35: Salmimaa and Nokia 9210 Communicator disclose a method and GUI of a mobile terminal of claims 21 and 33 receiving messages (paragraph 0026) and modifying application icons in response to the messages (paragraph 0013) as in claims 1 and 12 above, but does not disclose a method of displaying a preview of content of a new event. Hellebust discloses a method for the display of the wireless device to be updated to reflect that a new message has arrived by displaying the actual message (paragraph 0011). Therefore, it would have been obvious for to one having ordinary skill in the art for Salmimaa to include a view of the actual message for an icon when a new message arrives. One would have been motivated to display the actual message

for an icon when a new message arrives in order to display the content of the message rather than just the modification of the icon.

Claims 27 and 36: Salmimaa, Nokia 9210 Communicator and Hellebust disclose a method and GUI of a mobile terminal of claims 26 and 35 receiving messages (paragraph 0026) and modifying application icons in response to the messages (paragraph 0013) and Hellebust discloses a method for the display of the wireless device to be updated to reflect that a new message has arrived by displaying the actual message (paragraph 0011) as in claims 6 and 12 above. Salmimaa further discloses a method of an application launcher that launches an application associated with a selected icon in response to further user input (paragraph 0038).

Claim 28 and 37: Salmimaa, Nokia 9210 Communicator and Hellebust disclose a method and GUI of claims 27 and 36 for receiving messages (Salmimaa, paragraph 0026), modifying application icons in response to the messages (Hellebust, paragraph 0013) and an application launcher that launches an application associated with a selected icon in response to further user input (Salmimaa, paragraph 0038) as in claim 7 above, but do not disclose displaying a content preview in a dialog box. A dialog box is a very common way to display information separately from another window at the time of the invention. Therefore, it would have been obvious for Salmimaa and Hellebust to display a preview of content in a dialog box. One would have been motivated to display a preview of content in a dialog box in order to maximize display

space by displaying separate information over other information, therefore adding a third dimension of display space.

Claims 31 and 40: Salmimaa and Nokia 9210 Communicator disclose the method and GUI of claims 21 and 33, but does not disclose in response to a plurality of new events, visually modifying the icon of the one application in the application portion to notify of the plurality of new events. However, Salmimaa discloses modifying icons according to messages that come in from outside sources, for example, email messages, price or location (paragraphs 0003, 0026, 0027) and Hellebust discloses keeping count of messages received in each category (0017). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to add in response to a plurality of new events, visually modifying the icon of the one application in the application portion to notify of the plurality of new events to Salmimaa. One could have been motivated to add in response to a plurality of new events, visually modifying the icon of the one application in the application portion to notify of the plurality of new events to Salmimaa because an email application may receive a plurality of email messages or a single icon more than one or more context messages, i.e. price and location. Therefore, an icon may be modified to display the count of email messages or the plurality of messages received concerning, for example, price or location.

Claims 32 and 41: Salmimaa, Nokia 9210 Communicator and Hellebust disclose the method and GUI of claims 31 and 40 and further discloses visually modifying the icon of

the one application in the application portion comprises displaying a preview of a new event (Salmimaa: paragraphs 0026, 0013, Hellebust: paragraph 0011), but does not disclose visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of each of the plurality of new events. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to add visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of each of the plurality of new events to Salmimaa and Hellebust. One could have been motivated to add visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of each of the plurality of new events to Salmimaa and Hellebust because if Salmimaa and Hellebust disclose visually modifying the icon of the one application in the application portion comprises displaying a preview of a single new event, then Salmimaa and Hellebust could visually modifying the icon of the one application in the application portion comprises displaying a preview of a plurality of new events.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Heffington whose telephone number is (571) 270-1696. The examiner can normally be reached on Mon - Fri 8:00 - 5:30 EST.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. 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.

JMH

/Ba Huynh/

Primary Examiner, Art Unit 2179

<b>Notice of References Cited</b>	Application/Control No. 10/784,781	Applicant(s)/Patent Under Reexamination KLASSEN ET AL.	
	Examiner JOHN M. HEFFINGTON	Art Unit 2179	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A US-			
	B US-			
	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	Nokia 9210i Communicator, 2002, <a href="http://www.nokia.com/EUROPE_NOKIA_COM_3/r2/support/tutorials/9210i/english/intro.html">http://www.nokia.com/EUROPE_NOKIA_COM_3/r2/support/tutorials/9210i/english/intro.html</a> , PDF pages 1-7
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.

<b>Index of Claims</b> 	<b>Application/Control No.</b> 10784781	<b>Applicant(s)/Patent Under Reexamination</b> KLASSEN ET AL.
	<b>Examiner</b> Heffington, John M	<b>Art Unit</b> 2179

✓	<b>Rejected</b>
=	<b>Allowed</b>


-	<b>Cancelled</b>
÷	<b>Restricted</b>

N	<b>Non-Elected</b>
I	<b>Interference</b>

A	<b>Appeal</b>
O	<b>Objected</b>

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

CLAIM		DATE							
Final	Original	03/05/2007	12/07/2007	03/23/2008	10/17/2008				
	1	✓	-	-	-				
	2	✓	-	-	-				
	3	✓	-	-	-				
	4	✓	-	-	-				
	5	✓	-	-	-				
	6	✓	-	-	-				
	7	✓	-	-	-				
	8	✓	-	-	-				
	9	✓	-	-	-				
	10	✓	-	-	-				
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	13	✓	-	-	-				
	14	✓	-	-	-				
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	31		✓	✓	✓				
	32		✓	✓	✓				
	33		✓	✓	✓				
	34		✓	✓	✓				
	35		✓	✓	✓				
	36		✓	✓	✓				

<b>Index of Claims</b> 	<b>Application/Control No.</b> 10784781	<b>Applicant(s)/Patent Under Reexamination</b> KLASSEN ET AL.
	<b>Examiner</b> Heffington, John M	<b>Art Unit</b> 2179


✓	<b>Rejected</b>
=	<b>Allowed</b>

-	<b>Cancelled</b>
÷	<b>Restricted</b>

<b>N</b>	<b>Non-Elected</b>
<b>I</b>	<b>Interference</b>

<b>A</b>	<b>Appeal</b>
<b>O</b>	<b>Objected</b>

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant		<input type="checkbox"/> CPA		<input type="checkbox"/> T.D.		<input type="checkbox"/> R.1.47			
CLAIM		DATE							
Final	Original	03/05/2007	12/07/2007	03/23/2008	10/17/2008				
	37		✓	✓	✓				
	38		✓	✓	✓				
	39		✓	✓	✓				
	40		✓	✓	✓				
	41		✓	✓	✓				

<b>Search Notes</b>  	<b>Application/Control No.</b>  10784781	<b>Applicant(s)/Patent Under Reexamination</b>  KLASSEN ET AL.
	<b>Examiner</b>  Heffington, John M	<b>Art Unit</b>  2179

<b>SEARCHED</b>			
<b>Class</b>	<b>Subclass</b>	<b>Date</b>	<b>Examiner</b>
715	700	3/1/2007	JMH

<b>SEARCH NOTES</b>		
<b>Search Notes</b>	<b>Date</b>	<b>Examiner</b>
EAST Search	3/1/2007	JMH
EAST Search (update)	12/7/2007	JMH
EAST Search (update)	3/23/2008	JMH
NPL Search	3/23/2008	JMH
EAST Search	10/16/08	JMH

<b>INTERFERENCE SEARCH</b>			
<b>Class</b>	<b>Subclass</b>	<b>Date</b>	<b>Examiner</b>

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EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	4	("20020160817"   "20050248437").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/15 14:44
S2	2	(us-20050120306-\$). did.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/16 14:15

10/ 17/ 2008 3:33:58 PM

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number		10784781	
	Filing Date		2004-02-24	
	First Named Inventor	Cerhard D. Klassen		
	Art Unit	2179		
	Examiner Name	John M. Heffington		
	Attorney Docket Number	16813-1US		

U.S. PATENTS <span style="float: right;">Remove</span>						
Examiner Initial*	Cite No	Patent Number	Kind Code <sup>1</sup>	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1					

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U.S. PATENT APPLICATION PUBLICATIONS <span style="float: right;">Remove</span>						
Examiner Initial*	Cite No	Publication Number	Kind Code <sup>1</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	20060020904	US	2006-01-26	AALTONEN, Antti et al.	
	2	20050120306	US	2005-06-02	KLASSEN, Gerhard D. et al.	
	3	20060030295	US	2005-02-02	ADAMS, Neil P. et al.	

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FOREIGN PATENT DOCUMENTS <span style="float: right;">Remove</span>								
Examiner Initial*	Cite No	Foreign Document Number <sup>3</sup>	Country Code <sup>2</sup> j	Kind Code <sup>4</sup>	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T <sup>5</sup>
	1	JP2003271277	JP		2003-09-26	AKITANE, Tsuchiya		<input type="checkbox"/>

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /J.H./

<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> ( Not for submission under 37 CFR 1.99)	Application Number	10784781
	Filing Date	2004-02-24
	First Named Inventor	Cerhard D. Klassen
	Art Unit	2179
	Examiner Name	John M. Heffington
	Attorney Docket Number	16813-1US

If you wish to add additional Foreign Patent Document citation information please click the Add button

**NON-PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>5</sup>
	1		<input type="checkbox"/>

If you wish to add additional non-patent literature document citation information please click the Add button

**EXAMINER SIGNATURE**

Examiner Signature	/John Heffington/	Date Considered	10/17/2008
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> See Kind Codes of USPTO Patent Documents at [www.USPTO.GOV](http://www.USPTO.GOV) or MPEP 901.04. <sup>2</sup> Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>3</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>4</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>5</sup> Applicant is to place a check mark here if English language translation is attached.



## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	6	("20050120306"   "20060020904"   "20060030295").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/17 16:02
S1	4	("20020160817"   "20050248437").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/15 14:44
S2	2	(us-20050120306-\$. did.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2008/10/16 14:15

10/ 17/ 2008 4:03:10 PM

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 10/784,781

Art Unit: 2109

Filed: 02/24/2004

Confirmation No.: 2200

Applicant: Gerhard D. Klassen et al.

Examiner: Heffington, John M.

Title: PREVIEWING A NEW EVENT ON A SMALL SCREEN DEVICE

Docket No.: 16813-1US

Customer No.: 020988

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MS AMENDMENT  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, V.A. 22313-1450

Dear Sir/Madam:

**RESPONSE TO OFFICE ACTION**

This is in response to the Office Action of October 27, 2008. Please amend the application as follows:

**Amendments to the Claims** appear on page 2.

**Remarks/Arguments** appear on page 6.

**AMENDMENTS TO THE CLAIMS**

This listing of the claims replaces all prior versions, and listings, of claims in the application:

**Listing of Claims**

1-20. (Previously cancelled)

21. (Currently amended) A method for providing notifications of new events on a wireless communication device having a small display, the wireless communication device having a graphical user interface 'GUI' displayed on ~~[[a]] the display of the wireless communication device~~, the GUI having a main screen comprising an application portion for displaying icons for respective applications for execution on the wireless communication device and a status portion for displaying wireless communication device status information, the method comprising:

providing on the main screen and in the application portion a plurality of application icons each representing an application for managing respective events on the wireless device and each being invocable to launch its respective application, the application icons occupying a major portion of the main screen; and

in response to a new event in respect of one of the applications, visually modifying the respective application icon in the application portion of the main screen to notify of the new event and to display a preview of a content of the new event;

wherein the application icons are maintained on the main screen continuously.

22. (Original) The method of claim 21 comprising invoking the one application in the application portion in response to the visually modified icon.

23. (Original) The method of claim 21 comprising monitoring the one application in the application portion to determine an occurrence of the new event.
24. (Original) The method of claim 21 further comprising:
- determining a visual modification for the icon of the one application icon in the application portion in response to the new event; and
- using said visual modification when visually modifying.
25. (Original) The method of claim 24 wherein said step of determining a visual modification comprises maintaining a count of new events for the one application in the application portion.
26. (Cancelled)
27. (Currently amended) The method of claim [[26]] 21 wherein said displaying a preview is responsive to a user action.
28. (Original) The method of claim 27 wherein said displaying a preview of a content comprises displaying a dialog box over a portion of the main screen.
29. (Original) The method of claim 21 further comprising: in response to an activation of the one application in the application portion having its icon visually modified to notify of the new event, automatically navigating through the one application to the new event.
30. (Original) The method of claim 21 wherein said wireless device comprises at least one of a data communication device and a voice communication device; wherein at least some of said plurality of applications manage communications capabilities associated with the wireless device and wherein said events of said at least some of said plurality of applications comprise communication events.
31. (Original) The method of claim 21 further comprising, in response to a plurality of new events, visually modifying the icon of the one application in the application portion to notify of the plurality of new events.

32. (Original) The method of claim 31 wherein said visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of each of the plurality of new events.

33. (Currently Amended) A graphical user interface 'GUI' for a wireless communication device having a small display and a controller coupled to a memory, the memory storing a plurality of applications for managing respective events, the graphical user interface 'GUI' being provided for the applications and displayed on [[a]] the display, the GUI comprising:

a main screen for displaying on the display, the main screen comprising an application portion for displaying a plurality of application icons associated with a respective application in the plurality of applications and each being invocable to launch its respective application, the application icons occupying a major portion of the main screen, the main screen further comprising a status portion for displaying wireless communication device status information;

at least one monitoring component to determine the occurrence of new events of the applications; and

at least one icon modifying component to visually modify at least one of the application icons in the application portion of the main screen in response to a new event in respect of at least one of the applications to notify of the new event and to display a preview of a content of the new event;

wherein the application icons are maintained on the main screen continuously.

34. (Original) The GUI of claim 33 wherein said GUI is configured to maintain a count of new events for respective applications and said icon modifying component is configured to modify in response to said count.

35. (Cancelled)

36. (Presently amended) The GUI of claim [[35]] 33 wherein the icon modifying component is configured to display a preview in response to a user interaction with the one of the application icons in the application portion.

37. (Original) The GUI of claim 36 wherein said display of a preview comprises displaying a dialog box over a portion of the main screen.

38. (Original) The GUI of claim 33, wherein in response to a user interaction with the one of the application icons in the application portion, said GUI is configured to invoke the application associated with the one of the application icons to display the new event.

39. (Original) The GUI of claim 33 wherein said wireless device comprises at least one of a wireless data communication device and a wireless voice communication device; wherein at least some of said plurality of applications are configured to manage communications capabilities associated with the wireless device and wherein said new events of said at least some of said plurality of applications comprise communication events.

40. (Original) The GUI of claim 33 wherein the icon modifying component is configured to modify the one of the application icons in the application portion to notify of a plurality of new events.

41. (Original) The GUI of claim 40 wherein the icon modifying component is configured to play a preview of a content of each new event in the plurality of new events.

**REMARKS/ARGUMENTS**

Claims 21-25, 27-34 and 36-41 are pending. Claims 1-20, 26 and 35 are cancelled. Claims 21 and 33 are currently amended. No admission or representation is made by the present argument other than that explicitly provided herein.

The Applicant thanks the Examiner for reconsidering the arguments previously submitted.

Independent claims 21 and 33 have been amended to recite modifying “the respective application icon...to display a preview of a content of the new event.” Claims 26 and 35, which formerly recited this feature, have been accordingly cancelled.

Claims 21-41 stand rejected under 35 USC 103(a) over U.S. Publication No. 2002/0160817, hereinafter “Salmimaa,” in view of Nokia 9210 Communicator, hereinafter “Nokia.”

In his Response to the Applicant’s previously submitted Arguments, the Examiner alleges that there is no clear indication of what is meant by “small display size” and the Examiner accordingly infers that the mobile terminal of Salmimaa and that of Nokia may be considered by a person skilled in the art to have small displays. With respect, the present application is directed to a wireless communication device having a small display. Examples of such a device include a wireless telephone, as described in paragraph [0003]. The display on such a device is necessarily much smaller than that of a desktop or laptop computer. The display is also smaller than that of the communicator of Nokia. As is apparent on page 2 of Nokia, the communicator has two displays - a small primary exterior display and a larger secondary interior display. To view information on the secondary interior display, the user is required to exert effort in opening the device. This effort is the exact issue discussed by the Applicant in the “Description of the related art” at paragraph [0006]. The Applicant’s claimed subject matter makes a user’s task of viewing information on a small display simple and quick.

In addition, the Applicant submits that the primary exterior display of Nokia should be viewed as similar to the “small display” of the currently pending claims. As is most apparent on page 2 of Nokia, the primary exterior display is separate from the secondary interior display, and has a much smaller display. The teachings of Salmimaa are clearly directed to the secondary interior display and not the primary exterior display, as evidenced by Figure 1 of Salmimaa and contrary to the Examiner’s allegations. Although paragraph [0024] of Salmimaa states “a cellular telephone,” it is listed along with a portable computer, nowhere else does Salmimaa describe a cellular telephone, and the figures clearly show a larger display than would be found on a cellular telephone (for example, compare Figure 1 to the cell phone component shown on page 2 of Nokia). Clearly, although Salmimaa states “a cellular telephone,” a person skilled in the art would understand that such a telephone would need to have a large display like the secondary interior display of Nokia in order to support the teachings of Salmimaa and is different from the exemplary wireless telephone of the present application.

A person skilled in the art would understand that a small display as described in the present application is suitable for a cell phone, in contrast to the large display on a portable computing device. In fact, page 2 of Nokia cited by the Examiner supports this distinction, showing clearly that the primary exterior display, which is the concern of the present application, has a much smaller display than the secondary interior display, which is the concern of Salmimaa. Hence Salmimaa and the secondary interior display of Nokia would not be considered by a person skilled in the art as having “a small display” according to the meaning given to that term by the present application and it is submitted that the Nokia Communicator is relevant in showing that Salmimaa indeed does not teach a small display as presently claimed in the Applicant’s application.

Further, the claims recite “visually modifying the respective application icon...to display a preview of a content of the new event.” The Examiner admits that Salmimaa and Nokia do not teach displaying a preview of a content of the new event. However, in rejection of claims 26 and 35, the Examiner alleges that Hellebust discloses a method for the display of a wireless device to be updated to reflect that a new message has arrived by displaying the actual message (paragraph [0011]) and therefore that it would have been



obvious for a person skilled in the art to modify Salmimaa to include a view of the actual message for an icon when a new message arrives. The Examiner alleges that both Salmimaa and Hellebust receive, filter and display information related to messages received. The Examiner further alleges that a person skilled in the art would be motivated to modify Salmimaa with Hellebust to give Salmimaa the capability to further classify and categorize the received messages and to indicate the number of messages received related to a specific application. The Examiner finally alleges that a person skilled in the art would be motivated to make this modification in order to display the actual message for an icon when a new message arrives in order to display the content of the message rather than just the modification of the icon.

Salmimaa teaches modifying the icons by changing their size, color and location on the display (paragraphs [0013], [0027], [0028]) based on the priority of the message or service associated with the icon. Hellebust is not concerned with modifying an icon in any way, but rather filtering received messages so that a user is only alerted to high priority messages. In Hellebust, icons may be newly displayed as a visual alert that an important message has arrived, but there is no pre-existing icon that is being modified. Rather than modifying pre-existing icons to show relative priorities of the messages associated with the icons, Hellebust simply teaches that an icon or alert may be displayed for high-priority messages, and nothing is displayed for low-priority messages. The user is not provided with a visual cue of relative priorities, and in fact is not even notified of low-priority messages. Although both Salmimaa and Hellebust are concerned with filtering and displaying information related to messages received, the two achieve very different goals - one teaches modifying icons to show relative priorities while the other teaches displaying new icons only for high-priority messages. There, Salmimaa and Hellebust disclose completely different approaches, and a person skilled in the art would not be motivated to apply the teachings of Hellebust to Salmimaa because the two are directed to these different approaches that achieve completely different results.

Even if Salmimaa were combined with Hellebust in the manner suggested by the Examiner, the preview taught by Hellebust, when combined with the icons of Salmimaa, would not be suitable for use on a wireless device having a small display screen within

the meaning given to that term by the present application. As shown in Figure 1 of Salmimaa, information about an icon is displayed in a text box across the screen. That is, the icon itself is not modified, as presently claimed, but rather a text box is appended to the icon. A display of the message itself, as taught by Hellebust, will typically be quite lengthy and result in a large text box. As previously explained, Hellebust does not teach modification of any icons. As such, applying the preview of Hellebust to the text box of Salmimaa would result in a large text box containing the preview that is appended to the icon. Such a text box may be acceptable in a large display, such as that shown in Figure 1 of Salmimaa, however it would be too large for a small display, such as on a cell phone, and would obscure much of the small display. In this regard, even if the teachings of Hellebust were combined with the teachings of Salmimaa in the way suggested by the Examiner, the result would fail to meet the objectives of the presently claimed subject matter. The result of such a combination would be different from the present claim, in which the icon is modified to display a preview and thus keeps the preview space as compact as possible, to accommodate the small display, for example as shown in Figure 8 of the present application. The feature of modifying an icon to display a preview is particularly useful where the device has a small display, as it provides more information while minimizing obstruction of the display.

The Applicant submits it would not be obvious to a person skilled in the art to combine Salmimaa and Nokia with Hellebust. Even if such a combination were attempted, the claimed features of a small display and modifying an icon to display a preview of a content of a new event are not taught or even suggested by Salmimaa, Nokia or Hellebust, whether taken individually or combined. These two features together create a synergism that is not achieved by applying the teachings of Hellebust to that of Salmimaa. As such, the present claims, all of which include these features, are all novel and unobvious over Salmimaa, Nokia and Hellebust.

Favourable reconsideration and allowance of the application are respectfully requested. Should the Examiner have any questions in connection with the Applicant's submissions, please contact the undersigned.

Respectfully submitted,

**OGILVY RENAULT LLP**

Date: January 22, 2009

By:                   /cyw/                  

Christine Wong  
Registration No. 62,935  
Tel: (416) 216-1874  
Fax: (416) 216-3930

OGILVY RENAULT LLP  
Suite 3800, Royal Bank Plaza, South Tower  
200 Bay Street, P.O. Box 84  
Toronto, ON M5J 2Z4  
Canada

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	4655383
<b>Application Number:</b>	10784781
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	2200
<b>Title of Invention:</b>	Previewing a new event on a small screen device
<b>First Named Inventor/Applicant Name:</b>	Gerhard D. Klassen
<b>Customer Number:</b>	20988
<b>Filer:</b>	Christine Y. Wong/Kelly Trewin
<b>Filer Authorized By:</b>	Christine Y. Wong
<b>Attorney Docket Number:</b>	16813-1US
<b>Receipt Date:</b>	22-JAN-2009
<b>Filing Date:</b>	24-FEB-2004
<b>Time Stamp:</b>	11:57:16
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	no
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### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment/Req. Reconsideration-After Non-Final Reject	Response.pdf	405826 <small>b42411f427c893505e1711db369c9788e8a5ec48</small>	no	10

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**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.

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.

<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875					Application or Docket Number <b>10/784,781</b>		Filing Date <b>02/24/2004</b>		<input type="checkbox"/> To be Mailed		
<b>APPLICATION AS FILED – PART I</b>											
(Column 1)			(Column 2)			SMALL ENTITY <input type="checkbox"/>		OR		OTHER THAN SMALL ENTITY	
FOR		NUMBER FILED	NUMBER EXTRA		RATE (\$)	FEE (\$)	OR		RATE (\$)	FEE (\$)	
<input type="checkbox"/> BASIC FEE (37 CFR 1.16(a), (b), or (c))		N/A	N/A		N/A				N/A		
<input type="checkbox"/> SEARCH FEE (37 CFR 1.16(k), (l), or (m))		N/A	N/A		N/A		OR		N/A		
<input type="checkbox"/> EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))		N/A	N/A		N/A		OR		N/A		
TOTAL CLAIMS (37 CFR 1.16(i))		minus 20 =	*		X \$ =		OR		X \$ =		
INDEPENDENT CLAIMS (37 CFR 1.16(h))		minus 3 =	*		X \$ =		OR		X \$ =		
<input type="checkbox"/> 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).									
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))											
* If the difference in column 1 is less than zero, enter "0" in column 2.											
<b>APPLICATION AS AMENDED – PART II</b>											
(Column 1)			(Column 2)		(Column 3)			SMALL ENTITY		OR	OTHER THAN SMALL ENTITY
AMENDMENT	<b>01/22/2009</b>	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR		RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(o))	* 19	Minus	** 20	=	X \$ =				X \$ =	
	Independent (37 CFR 1.16(h))	* 2	Minus	***3	=	X \$ =		X \$ =			
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	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
						TOTAL ADD'L FEE	OR		TOTAL ADD'L FEE		
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR		RATE (\$)	ADDITIONAL FEE (\$)
	Total (37 CFR 1.16(o))	*	Minus	**	=	X \$ =				X \$ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$ =		X \$ =			
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	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
						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.										Legal Instrument Examiner: /KATRINA S. TURNER/	
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".											
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,781	02/24/2004	Gerhard D. Klassen	16813-1US	2200
20988	7590	04/08/2009	EXAMINER	
OGILVY RENAULT LLP 1981 MCGILL COLLEGE AVENUE SUITE 1600 MONTREAL, QC H3A2Y3 CANADA			HEFFINGTON, JOHN M	
			ART UNIT	PAPER NUMBER
			2179	
			MAIL DATE	DELIVERY MODE
			04/08/2009	PAPER

**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.





### **DETAILED ACTION**

This action is in response to amendment filed 22 January 2009. Claims 1-20, 26 and 35 have been canceled. Claims 21 and 33 have been amended. Claims 21-25, 27-34 and 36-41 are pending and have been considered below.

#### ***Response to Arguments***

1. Applicant's arguments, see Applicant's Arguments/Remarks, filed 22 January 2009, with have been fully considered and are persuasive.

The applicant argues that Salmimaa is directed to the larger display of the disclosed Nokia 9210 Communicator and, therefore, since the instant invention is directed to a device with a smaller screen, Salmimaa and the Nokia Communicator are non analogous art. The examiner respectfully disagrees. While it is true that the Nokia Communicator has two screens, a larger screen and a smaller screen and the figures of Salmimaa show the larger screen of the Nokia Communicator, the disclosure of Salmimaa in no way limits the features of Salmimaa to be implemented on the larger screen of the Nokia Communicator. As previously argued, Salmimaa specifically discloses that Salmimaa can be implemented on a cellular phone (paragraph 0024). Salmimaa identifies maintaining a convenient handheld form factor on mobile terminals with necessarily small displays and maximizing the number of icons and other graphical symbols on the display as problems to be solved by Salmimaa (paragraph 0004). Though Salmimaa shows a row of icons on what appears to be the larger display of the

Nokia Communicator, Salmimaa makes no mention of the number of icons to be displayed on the display of the device. Salmimaa only mentions maximizing the number of icons without making the icons too small. It is well within the scope of Salmimaa to render a smaller number of icons on the display of a mobile communication terminal than is displayed in, for example, figure 1 of Salmimaa. In spite of this, figure 2 of Salmimaa appears to show a different form factor in figure 2, that of a PDA. Further, the applicant still has not offered a convincing argument for why the larger display of the Nokia communicator should not be considered to be a small display. Therefore, the examiner is not persuaded that Salmimaa and the Nokia Communicator do not disclose similar small displays as claimed in the instant invention.

The applicant argues that Salmimaa does not disclose visually modifying the respective application icons to display a preview of a content of the new event. Upon further review, the examiner respectfully disagrees. Salmimaa discloses that the messages received can be advertisements or even emails (paragraph 0035). Further, Salmimaa discloses that a magnifying glass allows the user to move over icons on the display to depict further information regarding the icon (paragraph 0038). This further information would be associated with the message received related to the specific icon.

The applicant argues that Salmimaa and Helebust disclose completely different approaches and a person skilled in the art would not be motivated to apply the teachings of Helebust to Salmimaa because the two are directed to these approaches

that achieve completely different results. The examiner respectfully disagrees.

Salmimaa discloses receiving many different types of messages with regard to an application, including email (0035) on a mobile communication terminal, including a cell phone and a PDA. Furthermore, Salmimaa discloses displaying to a user further information regarding an icon of an application that has received a message (paragraph 0038) and changing the appearance of a personal icon if an email was received from that person (paragraph 0045). Hellebust discloses receiving messages at mobile communication terminal and announcing the arrival of messages, including displayed announcements such as the summarized number of messages received or the text of the message (paragraph 0011). The arts are analagous, mobile communication devices, receiving messages and displaying summarized information regarding the messages. Hellebust offers the feature of displaying the summarized count of messages received which would be useful in Salmimaa in conjunction with disclosed email icon that announces the arrival of an email message displaying the new message count for messages received. The examiner restates the argument offered with the action dated 27 October 2008 for combining Salmimaa and Hellebust. Salmimaa discloses a system and method wherein a mobile terminal receives messages from a number of entities and icons corresponding to the messages are ranked according to one or more context values and displayed using a display format that indicates the degree of matching between characteristics associated with the icon and one or more of the context values (paragraph 0026). Other criteria can be used to filter and display the icons corresponding to such entities and messages (paragraph 0027). The icons may

correspond to an email application (paragraph 0031). Hellebust discloses a filtered inbox for voice mail, email, pages, web-based information, and faxes (title). Hellebust further discloses a system for displaying, organizing, and prioritizing the incoming information on a wireless device, wherein the wireless device can display the number of internet information alerts that have been received by the wireless device during a specified time period (abstract). Both Salmimaa and Hellebust receive, filter and display information related to messages received. The filtering, displaying and organizing criteria is user definable in both Salmimaa (paragraph 0025) and Hellebust (paragraph 0014). One could be motivated to modify Salmimaa with Hellebust to give Salmimaa the capability to further classify and categorize the received messages and to indicate the number of messages received related to a specific application. Therefore, there is ample motivation for combining Salmimaa and Hellebust.

***Claim Rejections - 35 USC § 103***

2. 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 negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 21-24, 29, 30, 33, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmimaa (US 2002/0160817 A1) in view of Nokia 9210 Communicator

([http://www.nokia.com/EUROPE\\_NOKIA\\_COM\\_3/r2/support/tutorials/9210i/english/intro.html](http://www.nokia.com/EUROPE_NOKIA_COM_3/r2/support/tutorials/9210i/english/intro.html)).

Claim 21: Salmimaa discloses a method for

- a. providing notifications of new events on a wireless communication device having a small display (paragraphs 0024, 0026, figure 4),
- b. the wireless communication device having a graphical user interface 'GUI' displayed on a display of the wireless communication device (paragraph 0024, figure 1),
- c. the GUI having a main screen comprising an application portion for displaying icons for respective applications for execution on the wireless communication device (paragraph 0009, figure 1),
- d. the method comprising: providing on the main screen and in the application portion a plurality of application icons each representing an application for managing respective events on the wireless device and each being invocable to launch its respective application (paragraphs 0009, 0024, 0026, 0038, figure 1),

- e. the application icons occupying a major portion of the main screen (paragraphs 0009, 0024, figure 1); and
- f. in response to a new event in respect of one of the applications, visually modifying the respective application icon in the application portion of the main screen to notify of the new event (paragraph 0013, 0027); and
- g. to display a preview of a content of the new event (paragraphs 0035, 0038) [messages received can be advertisements and the magnifier glass selector displays further information regarding the icon.], wherein
- h. the application icons are maintained on the main screen continuously (paragraphs 0009 and 0024),

but does not disclose a status portion for displaying wireless communication device status information. However, Salmimaa discloses that the mobile terminal could be a Nokia 9210 Communicator (paragraph 0024). As disclosed in the included reference material for the Nokia 9210 Communicator, the Nokia 9210 includes a status portion for displaying wireless communication device status information (pages 3 and 4).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to add a status portion for displaying wireless communication device status information to Salmimaa. One could have been motivated to add a status portion for displaying wireless communication device status information to Salmimaa because, as noted in paragraph 0024 of Salmimaa, the mobile terminal may comprise a Nokia

9210 Communicator, therefore, the features of the Nokia 9210 are necessarily included in the limitations of the Salmimaa.

Claim 33: Salmimaa discloses

- a. a graphical user interface 'GUI' for a wireless communication device (paragraph 0024, figure 1)
- b. having a controller coupled to a memory (figure 4),
- c. the memory storing a plurality of applications for managing respective events (paragraph 0009, figure 4),
- d. the graphical user interface 'GUI' being provided for the applications and displayed on a display (paragraphs 0009, 0024, 0026, figure 1) , the GUI comprising:
  - e. a main screen for displaying on the display, the main screen comprising an application portion for displaying a plurality of application icons associated with a respective application in the plurality of applications and each being invocable to launch its respective application (paragraphs 0009, 0024, 0026, 0038, figure 1),
  - f. the application icons occupying a major portion of the main screen (paragraphs 0009, 0024, 0026, figure 1);
  - g. at least one monitoring component to determine the occurrence of new events of the applications (paragraphs 0009, 0024, 0026, figure 1); and
  - h. at least one icon modifying component to visually modify at least one of the application icons in the application portion of the main screen in response to a

- new event in respect of at least one of the applications to notify of the new event (paragraph 0013, 0027, figure 4); and
- i. to display a preview of a content of the new event wherein (paragraphs 0035, 0038) [messages received can be advertisements and the magnifier glass selector displays further information regarding the icon.], wherein,
  - j. the application icons are maintained on' the main screen continuously (paragraphs 0009 and 0024).

but does not disclose a status portion for displaying wireless communication device status information. However, Salmimaa discloses that the mobile terminal could be a Nokia 9210 Communicator (paragraph 0024). As disclosed in the included reference material for the Nokia 9210 Communicator, the Nokia 9210 includes a status portion for displaying wireless communication device status information (pages 3 and 4).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to add a status portion for displaying wireless communication device status information to Salmimaa. One could have been motivated to add a status portion for displaying wireless communication device status information to Salmimaa because, as noted in paragraph 0024 of Salmimaa, the mobile terminal may comprise a Nokia 9210 Communicator, therefore, the features of the Nokia 9210 are necessarily included in the limitations of the Salmimaa.



Claims 22 and 38: Salmimaa and Nokia 9210 Communicator disclose a method and GUI as in claims 21 and 33 and further discloses an application launcher that launches an application associated with a selected icon in response to further user input (paragraph 0038).

Claim 23: Salmimaa and Nokia 9210 Communicator disclose a method of claim 21 featuring an icon of a user more prominently when an email from that user is received, i.e. monitoring for new email messages (events) (paragraph 0045).

Claim 24: Salmimaa and Nokia 9210 Communicator disclose a method of claim 21 modifying application icons in response to the messages (paragraph 0013), thereby determining which modification should be made to the icon.

Claim 29: Salmimaa and Nokia 9210 Communicator disclose a method of claim 21 for an application launcher that launches an application associated with a selected icon in response to further user input, for example, a web browser or a document (paragraph 0038).

Claims 30 and 39: Salmimaa and Nokia 9210 Communicator disclose a method and a Graphical User Interface (GUI) for a mobile terminal of claims 21 and 33 that includes a microprocessor and a memory that communicates with one or more content providers via a wireless means (paragraph 0034).

5. Claims 25, 27-28, 31, 32, 34, 36-37, 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmimaa (US 2002/0160817 A1) in view of Nokia 9210 Communicator disclose and further in view of Hellebust (US 2005/0248437 A1).

Claims 25 and 34: Salmimaa and Nokia 9210 Communicator disclose a method and a graphical user interface (GUI) modifying application icons in response to the messages (paragraph 0013) as in claims 24 and 33 above, thereby determining which modification should be made to the icon, but does not disclose keeping a count of the number of messages received for each icon. Hellebust discloses a method showing the number of messages received under each of the categories (paragraph 0017). Therefore, it would have been obvious to one having ordinary skill in the art for Salmimaa to include a message count for each icon. One would have been motivated to include a message count for each icon to because some of the application programs cited in Salmimaa are capable of receiving multiple messages, for example emails, therefore, it would have been useful in Salmimaa do indicate the number of new email messages received in association with the email application icon.

Claim 26 and 35: canceled.

Claims 27 and 36: Salmimaa, Nokia 9210 Communicator and Hellebust disclose a method and GUI of a mobile terminal of claims 21 and 33 and Salmimaa further discloses said displaying a preview is responsive to a user action (paragraph 0038).

Claim 28 and 37: Salmimaa, Nokia 9210 Communicator and Hellebust disclose a method and GUI of claims 27 and 36 and Salmimaa further discloses displaying a preview of content in a dialog box (paragraph 0038)

Claims 31 and 40: Salmimaa and Nokia 9210 Communicator disclose the method and GUI of claims 21 and 33, but does not disclose in response to a plurality of new events, visually modifying the icon of the one application in the application portion to notify of the plurality of new events. However, Salmimaa discloses modifying icons according to messages that come in from outside sources, for example, email messages, price or location (paragraphs 0003, 0026, 0027) and Hellebust discloses keeping count of messages received in each category (0017). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to add in response to a plurality of new events, visually modifying the icon of the one application in the application portion to notify of the plurality of new events to Salmimaa. One could have been motivated to add in response to a plurality of new events, visually modifying the icon of the one application in the application portion to notify of the plurality of new events to Salmimaa because an email application may receive a plurality of email messages or a single icon more than one or more context messages, i.e. price and

location. Therefore, an icon may be modified to display the count of email messages or the plurality of messages received concerning, for example, price or location.

Claims 32 and 41: Salmimaa, Nokia 9210 Communicator and Hellebust disclose the method and GUI of claims 31 and 40 and further discloses visually modifying the icon of the one application in the application portion comprises displaying a preview of a new event (Salmimaa: paragraphs 0026, 0013, Hellebust: paragraph 0011), but does not disclose visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of each of the plurality of new events. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to add visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of each of the plurality of new events to Salmimaa and Hellebust. One could have been motivated to add visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of each of the plurality of new events to Salmimaa and Hellebust because if Salmimaa and Hellebust disclose visually modifying the icon of the one application in the application portion comprises displaying a preview of a single new event, then Salmimaa and Hellebust could visually modifying the icon of the one application in the application portion comprises displaying a preview of a plurality of new events.

**Conclusion**

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). 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 date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Heffington whose telephone number is (571) 270-1696. The examiner can normally be reached on Mon - Fri 8:00 - 5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571) 272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2179

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.

JMH  
4/7/09


/Steven B Theriault/  
Primary Examiner, Art Unit 2179

**EAST Search History**

<b>Ref #</b>	<b>Hits</b>	<b>Search Query</b>	<b>DBs</b>	<b>Default Operator</b>	<b>Plurals</b>	<b>Time Stamp</b>
S1	4	("20020160817"   "20050248437").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	ADJ	ON	2009/04/05 19:02

**4/ 7/ 2009 4:07:58 PM**

**C:\ Documents and Settings\jheffington\ My Documents\ 10784781\ SearchHistory5.wsp**

<b>Index of Claims</b> 	<b>Application/Control No.</b> 10784781	<b>Applicant(s)/Patent Under Reexamination</b> KLASSEN ET AL.
	<b>Examiner</b> Heffington, John M	<b>Art Unit</b> 2179

✓	<b>Rejected</b>
=	<b>Allowed</b>

-	<b>Cancelled</b>
÷	<b>Restricted</b>


N	<b>Non-Elected</b>
I	<b>Interference</b>

A	<b>Appeal</b>
O	<b>Objected</b>

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


CLAIM		DATE									
Final	Original	03/05/2007	12/07/2007	03/23/2008	10/17/2008	04/07/2009					
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	2	✓	-	-	-	-					
	3	✓	-	-	-	-					
	4	✓	-	-	-	-					
	5	✓	-	-	-	-					
	6	✓	-	-	-	-					
	7	✓	-	-	-	-					
	8	✓	-	-	-	-					
	9	✓	-	-	-	-					
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	34		✓	✓	✓	✓					
	35		✓	✓	✓	-					
	36		✓	✓	✓	✓					



<b><i>Index of Claims</i></b> 	<b>Application/Control No.</b> 10784781	<b>Applicant(s)/Patent Under Reexamination</b> KLASSEN ET AL.
	<b>Examiner</b> Heffington, John M	<b>Art Unit</b> 2179

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

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant		<input type="checkbox"/> CPA		<input type="checkbox"/> T.D.		<input type="checkbox"/> R.1.47			
CLAIM		DATE							
Final	Original	03/05/2007	12/07/2007	03/23/2008	10/17/2008	04/07/2009			
	37		✓	✓	✓	✓			
	38		✓	✓	✓	✓			
	39		✓	✓	✓	✓			
	40		✓	✓	✓	✓			
	41		✓	✓	✓	✓			

<b>Search Notes</b> 	<b>Application/Control No.</b> 10784781	<b>Applicant(s)/Patent Under Reexamination</b> KLASSEN ET AL.
	<b>Examiner</b> Heffington, John M	<b>Art Unit</b> 2179

<b>SEARCHED</b>			
<b>Class</b>	<b>Subclass</b>	<b>Date</b>	<b>Examiner</b>
715	700	3/1/2007	JMH

<b>SEARCH NOTES</b>		
<b>Search Notes</b>	<b>Date</b>	<b>Examiner</b>
EAST Search	3/1/2007	JMH
EAST Search (update)	12/7/2007	JMH
EAST Search (update)	3/23/2008	JMH
NPL Search	3/23/2008	JMH
EAST Search	10/16/08	JMH
EAST Search	4/7/09	JMH

<b>INTERFERENCE SEARCH</b>			
<b>Class</b>	<b>Subclass</b>	<b>Date</b>	<b>Examiner</b>

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 10/784,781

Art Unit: 2109

Filed: 02/24/2004

Confirmation No.: 2200

Applicant: Gerhard D. Klassen et al.

Examiner: Heffington, John M.

Title: PREVIEWING A NEW EVENT ON A SMALL SCREEN DEVICE

Docket No.: 16813-1US

Customer No.: 020988

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MS AMENDMENT

Commissioner of Patents

P.O. Box 1450

Alexandria, V.A. 22313-1450

Dear Sir/Madam:

**RESPONSE TO OFFICE ACTION**

This is in response to the Office Action of April 8, 2009.

**Remarks/Arguments** appear on page 2.

**Appendix I** begins on page 9.

**REMARKS/ARGUMENTS**

Claims 21-25, 27-34 and 36-41 are pending. Claims 1-20, 26 and 35 are cancelled. No admission or representation is made by the present argument other than that explicitly provided herein.

**Claim Rejections**

Claims 21-24, 29, 30, 33, 38 and 39 stand rejected under 35 USC 103(a) over U.S. Publication No. 2002/0160817, hereinafter "Salmimaa," in view of Nokia 9210 Communicator, hereinafter "Nokia."

**Salmimaa applies only to the larger screen of Nokia**

In the Response to Arguments, the Examiner admits that the Nokia Communicator has a larger and a smaller screen - the larger interior display shown when the interface is opened, and the smaller exterior display shown when the interface is closed - and that the figures in Salmimaa show the larger screen. However, the Examiner alleges that the teachings of Salmimaa are not limited to implementation on the larger screen of the Nokia Communicator. The Applicant respectfully disagrees. The figures in Salmimaa show icons being displayed on a screen that is clearly larger than that of the smaller screen on the Nokia Communicator shown on page 6 of Nokia. Further, the smaller screen on the Nokia Communicator is a very simple black and white pixelated display screen, as seen from the description on the cited website, which is attached as Appendix I. Clearly Salmimaa's detailed icons and any information provided by the icons would be impossible to show on the smaller screen of the Nokia Communicator.

The Examiner is asked to take into consideration the fact that the technology of Salmimaa and Nokia is substantially older than that of the present application, as evidenced by the fact that Salmimaa has a filing date of April 26, 2001, which is almost three years prior to the filing date of the present application, February 24, 2004. One skilled in the art would appreciate that wireless communication devices shrank substantially over the period from 2001 to 2004 and that the color and resolution of the

subsequent smaller displays also improved over this time. Salmimaa deals with technology in which small screen devices have very limited display capabilities, which is why Salmimaa is only concerned with the larger display on the Nokia Communicator. The Applicant submits that the Examiner is applying hindsight analysis and knowledge of what is available today to misinterpret what Salmimaa teaches in the context of the technology of 2001.

One skilled in the art would not modify Salmimaa to suit the smaller screen of Nokia

In the Response to Arguments, the Examiner alleges that it is within the scope of Salmimaa to render a smaller number of icons on the display, in order to fit within a small display. It is unclear on what basis the Examiner is making this allegation. Nowhere in Salmimaa does it suggest that the number of icons displayed may be modified or that the display may show only a subset of all available icons. Indeed, as the Examiner notes, paragraph [0004] of Salmimaa presents the problem of interest as being “how to maximize the number of icons and other graphical symbols on the display of such devices without making the symbols too small to see” (emphasis added). Reducing the number of icons displayed clearly would be contrary to the intended goal of maximizing the number of icons. Indeed, the stated purpose of Salmimaa is to provide a method by which less relevant icons may be decreased in size so that a large number of icons may be displayed without making relevant icons too small to see, for example as stated in paragraph [0013]: “The invention allows the most important objects or icons to be shown in full size for easy access, while still allowing dozens of icons or objects to be displayed on a single display screen” (emphasis added). The Applicant thus submits that there is nothing in Salmimaa that supports the Examiner’s position. Indeed, one skilled in the art reading Salmimaa would be taught away from the Examiner’s suggested modification. Even if the number of icons to be rendered on the display is decreased, the simple black and white pixelated display of the Nokia Communicator would make such a rendering impossible, as explained above. A person skilled in the art thus would not attempt to apply the teachings of Salmimaa to the smaller screen of the Nokia Communicator, contrary to the Examiner’s allegations.

The Examiner cites Figure 2 of Salmimaa as seeming to show a row of icons displayed on the screen of a PDA. It is not clear what argument the Examiner is attempting to support by the citation of Figure 2. The present application describes a wireless telephone as an example of a small screen device (see paragraph [0003]). The amount of detail shown in Figure 2 and the small font of the text displayed would not be readable on the smaller screen of the Nokia Communicator.

The interior screen of Nokia is not equivalent to a small display as claimed

The Applicant submits that “small display” as claimed must be given its proper interpretation within the meaning of the present application. The Background section of the application presents wireless telephones as examples of devices having small displays. The Examiner has pointed to the Nokia Communicator, in its closed configuration, as an example of a wireless telephone, for example as shown on page 6 of Nokia. In the closed configuration, the Nokia Communicator only shows a smaller exterior screen, which, as explained above, is not suitable for applying the teachings of Salmimaa. The Examiner suggests that the larger interior screen, accessible only when the Nokia Communicator is opened, may be considered a small display in the sense of the present claims. However, when the Nokia Communicator is opened, it is no longer in the form of the wireless telephone shown on page 6 of Nokia and cannot be held and used as a wireless telephone in the manner shown. Nokia thus clearly does not teach or suggest that the larger screen, accessible only when the Nokia Communicator is opened, may be a small display, such as one suitable for a wireless telephone, in the sense of the present application, contrary to the Examiner’s allegations.

In alleging that the larger interior screen of the Nokia Communicator may be considered equivalent to the claimed small display, it appears that the Examiner is attempting to combine features of the larger interior screen of the Nokia Communicator with features of the smaller exterior screen of the Nokia Communicator. In doing so, the Examiner has overlooked the clear differences in functions and capabilities of the two.

The smaller screen is designed to fit on the exterior of the closed Nokia Communicator while still allowing space for a telephone dial pad. The smaller screen has a coarse resolution and is limited in the information it is able to display. In contrast, the larger screen is viewed when the Nokia Communicator is opened, and because a full keyboard is provided on the bottom half, the larger screen is able to essentially take up all the area of the upper half. The larger screen has a much finer resolution that, together with its larger size, permits the display of icons and information, which is not possible on the smaller display. Thus, the smaller screen of the Nokia Communicator is not suitable for carrying out the functions of the larger screen.

The larger screen of the Nokia Communicator is able to take up all the area of the upper half of the opened device because the input mechanism, that is, the keyboard, is provided in the bottom half of the opened device. When the Nokia Communicator is closed, the screen and the input mechanism, that is, the telephone dial pad, must share the same surface area, necessitating a smaller screen. The larger interior screen cannot be used as the exterior screen because it would leave no space for any input mechanism, and decreasing the size of the larger screen to fit as the exterior screen would render the icons and information too small to see. Thus, the larger screen of the Nokia Communicator is not suitable for carrying out the functions of the smaller screen.

As such, the Applicant submits that a person skilled in the art would not consider the larger screen of the Nokia Communicator to be equivalent to the small display presently claimed.

Combination of Salmimaa with Hellebust is improper

In the Response to Arguments, the Examiner maintains that it is proper to combine Salmimaa with Hellebust because the two are both related to mobile communication devices, receiving messages and displaying summarized information regarding the messages. The Examiner alleges that one could be motivated to modify Salmimaa with Hellebust to give Salmimaa the capability to further classify and

categorize the received messages and to indicate the number of messages received related to a specific application.

While Salmimaa and Hellebust may be concerned with presenting information about received messages to the user, the two take two very different approaches. Salmimaa teaches modifying the icons by changing their size, color and location on the display (paragraphs [0013], [0027], [0028]) based on the priority of the message or service associated with the icon. Thus, the user is alerted to more relevant messages or services by the modified appearance of the icon. Hellebust is not concerned with modifying an icon in any way, but rather filtering received messages so that a user is only alerted to high priority messages. Hellebust simply teaches that an icon or alert may be newly displayed for high-priority messages, and nothing is displayed for low-priority messages. The user is not provided with a visual cue of relative priorities, and in fact is not even notified of low-priority messages.

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959); M.P.E.P. § 2141.01 VI.

Clearly, the principle of operation of Salmimaa is completely different from that of Hellebust. While Salmimaa provides a visual ranking of icons based on their relevance, Hellebust does no such ranking and only shows high-priority messages. Salmimaa aims to maximize the number of icons shown on the display, while Hellebust aims to minimize the number of icons shown. Thus, the two are contrary to each other and a person skilled in the art would not find it obvious to combine the two in the manner suggested by the Examiner.

Combination of Salmimaa with Hellebust does not arrive at the present claims

Even if Salmimaa were to be combined with Hellebust, the combination would not result in the features of the present claims. The present claims recite “visually modifying the respective application icon to display a preview.” The Examiner notes that



Salmimaa teaches changing the appearance of a personal icon is an email was received from that person. However, Salmimaa does not teach modifying an icon to display a preview, as required by the present claims. The Examiner cites paragraph [0035] as teaching that messages such as advertisements or emails may be received and displayed by Salmimaa. However, Salmimaa is silent as to how these messages may be displayed, and paragraph [0037] only describes how received messages may be used to determine the ranking of the icons. As shown in Figure 1, any detailed information is appended to the icon, rather than as a visual modification of the icon, as required by the present claims.

The Examiner cites paragraph [0038] as disclosing that a magnifying glass allows the user to move over the icons to depict further information, and alleges that this further information would be associated with the message received relating to the specific icon. However, this is unrelated to visually modifying the icon, and is only another instance of appending a context bar to the icon, as explained in paragraph [0031] of Salmimaa: “By moving the magnifying glass over an icon, a text message explaining or identifying the selected icon can be displayed at the bottom of the screen” (emphasis added). Clearly, when information of any detail is provided, the icon itself is not modified, as presently claimed. Hellebust similarly does not teach any modification of an icon to display a preview.

A display of the message itself, as taught by Hellebust, will typically be quite lengthy and result in a large text box. As such, applying the preview of Hellebust to the text box of Salmimaa would result in a large text box containing the preview that is appended to the icon, however the icon itself is not modified to display the preview. Such a text box may be acceptable in a large display, such as that shown in Figure 1 of Salmimaa, however it would be too large for a small display, such as on a wireless telephone, and would obscure much of the small display.

In this regard, even if the teachings of Hellebust were applied to the teachings of Salmimaa in the way suggested by the Examiner, the result would fail to arrive at presently claimed subject matter. The result of such a combination would be different



**APPENDIX I**

Attached is a print out from the website for the Nokia 9210 Communicator  
([http://www.nokia.com/EUROPE\\_NOKIA\\_COM\\_3/r2/support/tutorials/9210i/english/intro.html](http://www.nokia.com/EUROPE_NOKIA_COM_3/r2/support/tutorials/9210i/english/intro.html)) cited by the Examiner.



### Nokia 9210i Product support




[Intro](#) [Getting Started](#) [Using 9210i](#) [Software](#) [FAQ](#) [Troubleshooting](#)

Need help with the Settings?

<< Previous Next >>

**Show me...**

- Antenna icon
- Battery icon
- Operator indicator
- Selection keys
- Arrow keys
- Green key
- Red key
- Profiles key
- On/off button
- Voice mailbox key
- Number and alphabet keys
- \* and # keys



<< Previous Next >>

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## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	5463988
<b>Application Number:</b>	10784781
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	2200
<b>Title of Invention:</b>	Previewing a new event on a small screen device
<b>First Named Inventor/Applicant Name:</b>	Gerhard D. Klassen
<b>Customer Number:</b>	20988
<b>Filer:</b>	Christine Y. Wong/Kelly Trewin
<b>Filer Authorized By:</b>	Christine Y. Wong
<b>Attorney Docket Number:</b>	16813-1US
<b>Receipt Date:</b>	05-JUN-2009
<b>Filing Date:</b>	24-FEB-2004
<b>Time Stamp:</b>	15:25:21
<b>Application Type:</b>	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	Amendment After Final	Response.pdf	424436 <small>32d018f42189e8f1f70aafed8e60180c5394c699</small>	no	10

### Warnings:

### Information:

Total Files Size (in bytes):

424436

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.
10/784,781	02/24/2004	Gerhard D. Klassen	16813-IUS	2200
20988	7590	06/19/2009	EXAMINER	
OGILVY RENAULT LLP 1, Place Ville Marie SUITE 2500 MONTREAL, QC H3B 1R1 CANADA			HEFFINGTON, JOHN M	
			ART UNIT	PAPER NUMBER
			2179	
			MAIL DATE	DELIVERY MODE
			06/19/2009	PAPER

**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.

<b>Advisory Action Before the Filing of an Appeal Brief</b>	<b>Application No.</b> 10/784,781	<b>Applicant(s)</b> KLASSEN ET AL.	
	<b>Examiner</b> JOHN M. HEFFINGTON	<b>Art Unit</b> 2179	

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

THE REPLY FILED 05 June 2009 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1.  The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a)  The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b)  The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2.  The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3.  The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a)  They raise new issues that would require further consideration and/or search (see NOTE below);  
(b)  They raise the issue of new matter (see NOTE below);  
(c)  They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d)  They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4.  The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5.  Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6.  Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7.  For purposes of appeal, the proposed amendment(s): a)  will not be entered, or b)  will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 21-25,27-34 and 36-41.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8.  The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9.  The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10.  The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11.  The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12.  Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_  
13.  Other: \_\_\_\_\_.

/Steven B Theriault/  
Primary Examiner, Art Unit 2179



Continuation of 11. does NOT place the application in condition for allowance because: The applicant argues that Salmimaa applies only to the larger screen of the Nokia Communicator. The examiner feels that this is a spurious argument. No where do the claims cite a device with a smaller screen and a larger screen, therefore, arguing with respect to the two screens in Salmimaa and the Nokia Communicator is irrelevant. The point of the applicant's argument seems to be that Salmimaa applies to a large screen whereas the claims of the instant invention are drawn to a device with a small display. The examiner respectfully disagrees. As previously argued by the examiner, neither the written description nor the claims of the instant invention provide an objective measure for determining a "small display" apart from a "medium display" or a "large display". The Nokia Communicator has two displays, and though one display is larger than the other, it is the examiner's opinion that BOTH displays are small. Therefore, asserting that Salmimaa seems to apply the limitations of the invention to the larger display does not disqualify the larger display from reading on the instant invention. The examiner reiterates that Salmimaa does not restrict the features of the disclosed invention to just the larger display, the features could as well be applied to the smaller display. The applicant claims that the small screen on the Nokia Communicator is "a very simple black and white pixelated display screen." The examiner believes that he has obviated this assertion by supporting that the color screen of the Nokia Communicator could as well be considered to be a small display. However, to address this statement, the examiner points out that a video display is usually if not always constructed with pixels, therefore, the color display of the Communicator would also be pixelated. Furthermore, since the claims of the instant invention make no mention of color, a black and white display would also read on the claims.

OK TO ENTER: /J.H./

06/17/2009

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 10/784,781

Art Unit: 2109

Filed: 02/24/2004

Confirmation No.: 2200

Applicant: Gerhard D. Klassen et al.

Examiner: Heffington, John M.

Title: PREVIEWING A NEW EVENT ON A SMALL SCREEN DEVICE

Docket No.: 16813-1US

Customer No.: 020988

---

MS AMENDMENT

Commissioner of Patents

P.O. Box 1450

Alexandria, V.A. 22313-1450

Dear Sir/Madam:

**RESPONSE TO OFFICE ACTION**

This is in response to the Office Action of April 8, 2009.

**Remarks/Arguments** appear on page 2.

**Appendix I** begins on page 9.

Doc code: RCEX

Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (06-09)

Approved for use through 07/31/2009. 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 contains a valid OMB control number.

**REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL  
(Submitted Only via EFS-Web)**

Application Number	10784781	Filing Date	2004-02-24	Docket Number (if applicable)	16813-1US	Art Unit	2109
First Named Inventor	KLASSEN, Gerhard D.			Examiner Name	HERRINGTON, John M.		

**This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.**  
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

**SUBMISSION REQUIRED UNDER 37 CFR 1.114**

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

- Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.
- Consider the arguments in the Appeal Brief or Reply Brief previously filed on \_\_\_\_\_
- Other \_\_\_\_\_
- Enclosed
- Amendment/Reply
- Information Disclosure Statement (IDS)
- Affidavit(s)/ Declaration(s)
- Other \_\_\_\_\_

**MISCELLANEOUS**

- Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months \_\_\_\_\_  
(Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)
- Other \_\_\_\_\_

**FEES**

- The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.**
- The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to  
Deposit Account No 195113

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED**

- Patent Practitioner Signature
- Applicant Signature

Doc code: RCEX

Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (06-09)

Approved for use through 07/31/2009. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Signature of Registered U.S. Patent Practitioner			
Signature	/cyw/	Date (YYYY-MM-DD)	2009-07-08
Name	Christine Y. Wong	Registration Number	62935

This collection of information is required by 37 CFR 1.114. 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.

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

## Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

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<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875					Application or Docket Number 10/784,781					
<b>APPLICATION AS FILED – PART I</b>										
(Column 1)		(Column 2)			SMALL ENTITY		OR	OTHER THAN SMALL ENTITY		
FOR	NUMBER FILED	NUMBER EXTRA			RATE (\$)	FEE (\$)		RATE (\$)	FEE (\$)	
BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>	N/A	N/A			N/A			N/A		
SEARCH FEE <small>(37 CFR 1.16(k), (l), or (m))</small>	N/A	N/A			N/A			N/A		
EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>	N/A	N/A			N/A			N/A		
TOTAL CLAIMS <small>(37 CFR 1.16(j))</small>	minus 20 =	*			X =		OR	X =		
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>	minus 3 =	*			X =			X =		
APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$260 (\$130 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 <small>(37 CFR 1.16(j))</small>					N/A			N/A		
* If the difference in column 1 is less than zero, enter "0" in column 2.					TOTAL			TOTAL		
<b>APPLICATION AS AMENDED – PART II</b>										
(Column 1)		(Column 2)		(Column 3)	SMALL ENTITY		OR	OTHER THAN SMALL ENTITY		
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)	
	Total <small>(37 CFR 1.16(i))</small>	* 51	Minus	** 41	= 10		OR	X 10 =	52.00	
	Independent <small>(37 CFR 1.16(h))</small>	*	Minus	***	=		OR	X =		
	Application Size Fee <small>(37 CFR 1.16(s))</small>									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>					N/A		OR	N/A	
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	520.00	
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)	
	Total <small>(37 CFR 1.16(i))</small>	*	Minus	**	=		OR	X =		
	Independent <small>(37 CFR 1.16(h))</small>	*	Minus	***	=		OR	X =		
	Application Size Fee <small>(37 CFR 1.16(s))</small>									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>					N/A		OR	N/A	
					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.										

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.**

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## Electronic Patent Application Fee Transmittal

<b>Application Number:</b>	10784781			
<b>Filing Date:</b>	24-Feb-2004			
<b>Title of Invention:</b>	Previewing a new event on a small screen device			
<b>First Named Inventor/Applicant Name:</b>	Gerhard D. Klassen			
<b>Filer:</b>	Christine Y. Wong/Kelly Trewin			
<b>Attorney Docket Number:</b>	16813-1US			
Filed as Large Entity				
<b>Utility under 35 USC 111(a) Filing Fees</b>				
<b>Description</b>	<b>Fee Code</b>	<b>Quantity</b>	<b>Amount</b>	<b>Sub-Total in USD(\$)</b>
<b>Basic Filing:</b>				
<b>Pages:</b>				
<b>Claims:</b>				
Claims in excess of 20	1202	10	52	520
<b>Miscellaneous-Filing:</b>				
<b>Petition:</b>				
<b>Patent-Appeals-and-Interference:</b>				
<b>Post-Allowance-and-Post-Issuance:</b>				
<b>Extension-of-Time:</b>				



Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
<b>Miscellaneous:</b>				
Request for continued examination	1801	1	810	810
<b>Total in USD (\$)</b>				<b>1330</b>

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	5664759
<b>Application Number:</b>	10784781
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	2200
<b>Title of Invention:</b>	Previewing a new event on a small screen device
<b>First Named Inventor/Applicant Name:</b>	Gerhard D. Klassen
<b>Customer Number:</b>	20988
<b>Filer:</b>	Christine Y. Wong/Kelly Trewin
<b>Filer Authorized By:</b>	Christine Y. Wong
<b>Attorney Docket Number:</b>	16813-1US
<b>Receipt Date:</b>	08-JUL-2009
<b>Filing Date:</b>	24-FEB-2004
<b>Time Stamp:</b>	15:43:10
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$1330
RAM confirmation Number	1894
Deposit Account	195113
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### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1	Amendment Submitted/Entered with Filing of CPA/RCE	Response.pdf	621343	no	16
			89c5f26e92a6f02f17c41991a63c5b324503205e		
<b>Warnings:</b>					
<b>Information:</b>					
2	Request for Continued Examination (RCE)	RCE_form.pdf	801973	no	3
			0867abb42b0d7518eebda4809bb3a682999ffc02		
<b>Warnings:</b>					
<b>Information:</b>					
3	Fee Worksheet (PTO-875)	Fee_Form.pdf	307647	no	2
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<b>Warnings:</b>					
<b>Information:</b>					
4	Fee Worksheet (PTO-875)	fee-info.pdf	31752	no	2
			724bc5ed0bfefcf5857c2572b880e0e022e6dcd0		
<b>Warnings:</b>					
<b>Information:</b>					
<b>Total Files Size (in bytes):</b>			1762715		
<p><b>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.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b>  <b>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.</b></p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b>  <b>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.</b></p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b>  <b>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.</b></p>					

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 10/784,781

Art Unit: 2109

Filed: 02/24/2004

Confirmation No.: 2200

Applicant: Gerhard D. Klassen et al.

Examiner: Heffington, John M.

Title: PREVIEWING A NEW EVENT ON A SMALL SCREEN DEVICE

Docket No.: 16813-1US

Customer No.: 020988

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MS AMENDMENT

Commissioner of Patents

P.O. Box 1450

Alexandria, V.A. 22313-1450

Dear Sir/Madam:

**RESPONSE TO OFFICE ACTION**

This is in response to the Office Action of April 8, 2009. This is being filed concurrently with a Request for Continued Examination.

**Amendments to the Claims** appear on page 2.

**Remarks/Arguments** appear on page 7.

**Appendix I** appears on page 15.

**AMENDMENTS TO THE CLAIMS**

This listing of the claims replaces all prior versions, and listings, of claims in the application:

**Listing of Claims**

1-20. (Previously cancelled)

21. (Currently amended) A method for providing notifications of new events on a wireless communication device having a small display, the wireless communication device having a graphical user interface 'GUI' displayed on the display, the GUI having a main screen comprising an application portion for displaying icons for respective applications for execution on the wireless communication device ~~and a status portion for displaying wireless communication device status information~~, the method comprising:

providing on the main screen and in the application portion a plurality of application icons each representing an application ~~for managing respective events on~~ at the wireless device and each being invocable to launch its respective application; ~~the application icons occupying a major portion of the main screen;~~  
and

in response to a new event in respect of one of the applications, visually modifying the respective application icon in the application portion of the main screen to notify of the new event and to display a first preview of a content of the new event;

wherein the application icons are maintained on the main screen continuously;  
and

wherein the first preview persists on the main screen when a subsequent second preview is displayed for a subsequent event.

22. (Original) The method of claim 21 comprising invoking the one application in the application portion in response to the visually modified icon.
23. (Original) The method of claim 21 comprising monitoring the one application in the application portion to determine an occurrence of the new event.
24. (Original) The method of claim 21 further comprising:
- determining a visual modification for the icon of the one application icon in the application portion in response to the new event; and
- using said visual modification when visually modifying.
25. (Original) The method of claim 24 wherein said step of determining a visual modification comprises maintaining a count of new events for the one application in the application portion.
26. (Cancelled)
27. (Currently amended) The method of claim 21 wherein said displaying [[a]] the first preview is responsive to a user action.
28. (Currently amended) The method of claim 27 wherein said displaying [[a]] the first preview [[of a content]] comprises [[displaying]] visually modifying the icon to include a dialog box over a portion of the main screen.
29. (Original) The method of claim 21 further comprising: in response to an activation of the one application in the application portion having its icon visually modified to notify of the new event, automatically navigating through the one application to the new event.
30. (Original) The method of claim 21 wherein said wireless device comprises at least one of a data communication device and a voice communication device; wherein at least some of said plurality of applications manage communications capabilities associated with the wireless device and wherein said events of said at least some of said plurality of applications comprise communication events.

31. (Original) The method of claim 21 further comprising, in response to a plurality of new events, visually modifying the icon of the one application in the application portion to notify of the plurality of new events.

32. (Original) The method of claim 31 wherein said visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of each of the plurality of new events.

33. (Currently Amended) A graphical user interface 'GUI' for a wireless communication device having a small display and a controller coupled to a memory, the memory storing a plurality of applications [[for managing respective events]], the graphical user interface 'GUI' being provided for the applications and displayed on the display, the GUI comprising:

a main screen for displaying on the display, the main screen comprising an application portion for displaying a plurality of application icons associated with a respective application in the plurality of applications and each being invocable to launch its respective application, ~~the application icons occupying a major portion of the main screen, the main screen further comprising a status portion for displaying wireless communication device status information;~~

at least one monitoring component to determine the occurrence of new events of the applications; and

at least one icon modifying component to visually modify at least one of the application icons in the application portion of the main screen in response to a new event in respect of at least one of the applications to notify of the new event and to display a first preview of a content of the new event;

wherein the application icons are maintained on the main screen continuously;  
and

wherein the first preview persists on the main screen when a subsequent second preview is displayed for a subsequent event.

34. (Original) The GUI of claim 33 wherein said GUI is configured to maintain a count of new events for respective applications and said icon modifying component is configured to modify in response to said count.

35. (Cancelled)

36. (Currently amended) The GUI of claim 33 wherein the icon modifying component is configured to display [[a]] the first preview in response to a user interaction with the one of the application icons in the application portion.

37. (Currently amended) The GUI of claim 36 wherein said display of [[a]] the first preview comprises [[displaying]] visually modifying the icon to include a dialog box over a portion of the main screen.

38. (Original) The GUI of claim 33, wherein in response to a user interaction with the one of the application icons in the application portion, said GUI is configured to invoke the application associated with the one of the application icons to display the new event.

39. (Original) The GUI of claim 33 wherein said wireless device comprises at least one of a wireless data communication device and a wireless voice communication device; wherein at least some of said plurality of applications are configured to manage communications capabilities associated with the wireless device and wherein said new events of said at least some of said plurality of applications comprise communication events.

40. (Original) The GUI of claim 33 wherein the icon modifying component is configured to modify the one of the application icons in the application portion to notify of a plurality of new events.

41. (Original) The GUI of claim 40 wherein the icon modifying component is configured to play a preview of a content of each new event in the plurality of new events.

42. (New) The method of claim 21 wherein the GUI further comprises a status portion for displaying wireless communication device status information.



43. (New) The method of claim 21 wherein the application icons occupy a major portion of the main screen.
44. (New) The method of claim 21 wherein the first preview persists until the new event is opened.
45. (New) The method of claim 21 wherein the subsequent event is in respect of a second of the applications different from the one of the applications.
46. (New) The method of claim 27 wherein there is a delay before displaying the first preview in response to the user action.
47. (New) The GUI of claim 33 further comprising a status portion for displaying wireless communication device status information.
48. (New) The GUI of claim 33 wherein the application icons occupy a major portion of the main screen.
49. (New) The GUI of claim 33 wherein the first preview persists until the new event is opened.
50. (New) The GUI of claim 33 wherein the subsequent event is in respect of a second of the applications different from the one of the applications.
51. (New) The method of claim 36 wherein the icon modifying component is configured to display the first preview in response to the user action after a delay.

**REMARKS/ARGUMENTS**

Claims 21-25, 27-34 and 36-41 are pending. Claims 1-20, 26 and 35 are cancelled. Claims 42-51 are new. No admission or representation is made by the present argument other than that explicitly provided herein.

**Summary of Interview**

The Applicant thanks the Examiner for the interview of July 7, 2009. During the interview, the features of the claims were discussed as well as the references cited. The Examiner agreed that the feature of a delay before displaying a preview in response to a user action (as described in paragraph [0050] of the description) and the feature of a persistent preview (as described in paragraphs [0049] and [0063] of the description) would distinguish the present claims over the cited references. The Applicant thanks the Examiner for this and has amended the claims taking this into account.

The Examiner also suggested that because the Nokia Communicator has a large keyboard when opened, the larger display may be correspondingly considered a large display, in contrast to the small display when the Nokia Communicator is closed. The Applicant also thanks the Examiner for this.

**Claim Amendments**

In view of the Examiner interview, independent claims 21 and 33 have been amended to include the feature of “wherein the first preview persists on the main screen when a subsequent second preview is displayed for a subsequent event.” Support for this feature may be found, for example, in paragraphs [0049] and [0063] of the application.

The features of “a status portion for displaying wireless communication device status information” and “the application icons occupying a major portion of the main screen” have been removed from the independent claims, in order to clarify the claimed subject matter. The phrase in claim 21, “an application for managing respective events” has been replaced with “an application”; and the corresponding phrase in claim 33,

“applications for managing respective events” has been replaced with “applications” for clarity.

Dependent claims 27, 28, 36 and 37 have been amended to agree with the amendments to the independent claims.

New claims 42 and 47 have been added to recite the feature of a status portion, formerly found in the independent claims.

New claims 43 and 48 have been added to recite the feature of the application icons occupying a major portion of the main screen, formerly found in the independent claims.

New claims 44 and 49 have been added to recite the feature that the first preview persists until the new event is opened. Support for this may be found, for example, in paragraph [0049] of the application.

New claims 45 and 50 have been added to recite the feature that the subsequent event may be for a second application different from the one application. Support for this may be found, for example in FIG. 8 of the application.

New claims 46 and 51 have been added to recite the feature of a delay before displaying the preview in response to a user action. Support for this may be found, for example, in paragraph [0050] of the application.

### **Claim Rejections**

#### **Salmimaa in combination with Nokia**

Claims 21-24, 29, 30, 33, 38 and 39 stand rejected under 35 USC 103(a) over U.S. Publication No. 2002/0160817, hereinafter “Salmimaa,” in view of Nokia 9210 Communicator, hereinafter “Nokia.” The Applicant respectfully disagrees for at least the reasons provided below.

The larger display of the Nokia Communication is not a small display; Salmimaa is not applicable to the smaller display of the Nokia Communicator

The Examiner alleges that larger display of the Nokia Communicator may be considered a small display. The Examiner also alleges that the teachings of Salmimaa may be modified to suit the smaller display of the Nokia Communicator. The Applicant disagrees with the Examiner's position, and submits that the device having a small display in the present application is not equivalent to the Nokia Communicator.

As stated on page 2 of the user manual for the Nokia Communicator (attached in Appendix I), the Nokia Communicator has two parts - the phone and the communicator interface. When the Communicator is opened to activate the communicator interface, "the large keyboard, command buttons, and display make using the applications easy." This indicates that the full, large keyboard and correspondingly sized display differ from and offer advantages over a small display, in that they are large and hence "make using the applications easy." Thus, the display may be considered a large display, in contrast to the small display required by the present claims.

The Applicant's previously submitted arguments against modifying the teachings of Salmimaa to be implemented on the smaller display of the Nokia Communication, such as the Examiner's suggestion of reducing the number of icons, are still applicable and the Applicant requests that these be brought forward. For the sake of brevity, these arguments will not be repeated here.

The Examiner is asked to take into consideration the fact that the technology of Salmimaa and Nokia is substantially older than that of the present application, as evidenced by the fact that Salmimaa has a filing date of April 26, 2001, which is almost three years prior to the filing date of the present application, February 24, 2004. One skilled in the art would appreciate that wireless communication devices shrank substantially over the period from 2001 to 2004 and that the color and resolution of the subsequent smaller displays also improved over this time. Salmimaa deals with

technology in which small screen devices have very limited display capabilities, which is why Salmimaa is only concerned with the larger display on the Nokia Communicator. The Applicant submits that the Examiner is applying hindsight analysis and knowledge of what is available today to misinterpret what Salmimaa teaches in the context of the technology of 2001.

Nonetheless, in the interest of advancing prosecution, the claims have been amended in view of the Examiner's suggestions during the Examiner interview.

Salmimaa and Nokia do not teach a persistent preview

The independent claims recite the feature "wherein the first preview persists on the main screen when a subsequent second preview is displayed for a subsequent event." This means, for example, that the preview of a received message is not replaced by a newer preview of a subsequently received message. Thus, the user is provided with preview information of not only the most recent event, but also persistent preview information of an older event. This may be advantageous, for example, where the user is in fact more interested in the older event and thus would not want the preview of a newer but less important event to replace the preview of the older event.

Additionally, multiple applications may have new events for previewing on the respective application icons. After one application has a new event, a different application may have a subsequent event. The feature that a preview persists even when subsequent previews are displayed means that the when an application has a new event, its associated application icon is visually modified to display a first preview for the new event, and when a different application has a subsequent event, a different associated application icon is also visually modified to display a subsequent second preview for the subsequent event, without affecting the display of the first preview. Thus, multiple application icons may have multiple respective previews that appear subsequent to each other, without affecting the display of any earlier preview. This may be advantageous, for example, in that the user can, in one glance, see previews of all new events for various applications.

Salmimaa fails to teach this feature. According to the teachings of Salmimaa, for example as found in paragraph [0038]: “[an] optional icon selector function 411, for example a magnifying glass selector, allows the user to move over icons on the display to depict further information regarding the icons and to temporarily enlarge icons of potential interest” (emphasis added). This further information is displayed only in when the icon selector is moved over an icon, and accordingly does not persist after the icon selector is moved away. As shown in FIG. 1, the further information can be displayed in a text box below the row of icons. Paragraph [0031] of Salmimaa also states: “By moving the magnifying glass over an icon, a text message explaining or identifying the selected icon can be displayed at the bottom of the screen” (emphasis added). This interface design clearly indicates that only one instance of further information, whether for the same icon or for different icons, can be shown at any given time, since the text boxes would otherwise overlap and obscure each other. There is nothing in Salmimaa that suggests that the further information persists when subsequent further information is displayed.

Nokia does not teach or suggest any preview of an event and thus does not teach or suggest a persistent preview. Hence, the combination of Salmimaa and Nokia does not teach or suggest at least the claimed feature of “wherein the first preview persists on the main screen when a subsequent second preview is displayed for a subsequent event.” During the Examiner interview, the Examiner agreed that this feature would distinguish over the cited references.

Claims 46 and 51 recite additional feature not taught by Salmimaa and Nokia

Claims 46 and 51 are dependent on independent claims 21 and 33, and hence include features not taught or suggested by Salmimaa in combination with Nokia, as explained above. In addition, claim 46 recites the feature of “a delay before displaying the first preview in response to the user action” and claim 51 recites a similar feature.

This feature also is not taught or suggested by Salmimaa and Nokia. There is no teaching or suggested in either Salmimaa or Nokia of there being any delay in displaying

a preview in response to a user action. During the Examiner interview, the Examiner agreed that this feature would distinguish over the cited references.

Conclusion with regards to Salmimaa and Nokia

In view of the foregoing, the Applicant submits that the combination of Salmimaa and Nokia fails to teach all the features recited in the independent claims. The dependent claims include all the features of the independent claims and recite additional features not found in Salmimaa and Nokia. Thus, the present claims are all patentable over Salmimaa and Nokia for at least these reasons. The Examiner is respectfully asked to withdraw this rejection.

Salmimaa in view of Nokia and further in view of Hellebust

Claims 25, 27-28, 31, 32, 34, 36-37, 40 and 41 stand rejected under 35 U.S.C. 103(a) having regard to Salmimaa in view of Nokia and further in view of U.S. Publication No. 2005/0248437 (hereinafter "Hellebust"). The Applicant respectfully disagrees for at least the reasons provided below.

Combination of Salmimaa with Hellebust is improper

In the Response to Arguments, the Examiner maintains that it is proper to combine Salmimaa with Hellebust because the two are both related to mobile communication devices, receiving messages and displaying summarized information regarding the messages. The Examiner alleges that one could be motivated to modify Salmimaa with Hellebust to give Salmimaa the capability to further classify and categorize the received messages and to indicate the number of messages received related to a specific application.

While Salmimaa and Hellebust may be concerned with presenting information about received messages to the user, the two take two very different approaches. Salmimaa teaches modifying the icons by changing their size, color and location on the display (paragraphs [0013], [0027], [0028]) based on the priority of the message or service associated with the icon. Thus, the user is alerted to more relevant messages or

services by the modified appearance of the icon. Hellebust is not concerned with modifying an icon in any way, but rather filtering received messages so that a user is only alerted to high priority messages. Hellebust simply teaches that an icon or alert may be newly displayed for high-priority messages, and nothing is displayed for low-priority messages. The user is not provided with a visual cue of relative priorities, and in fact is not even notified of low-priority messages.

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959); M.P.E.P. § 2141.01 VI.

Clearly, the principle of operation of Salmimaa is completely different from that of Hellebust. While Salmimaa provides a visual ranking of icons based on their relevance, Hellebust does no such ranking and only shows high-priority messages. Salmimaa aims to maximize the number of icons shown on the display, while Hellebust aims to minimize the number of icons shown. Thus, the two are contrary to each other and a person skilled in the art would not find it obvious to combine the two in the manner suggested by the Examiner.

Combination of Salmimaa and Nokia with Hellebust does not arrive at the present claims

Even if Salmimaa and Nokia were to be combined with Hellebust, the combination would not result in the features of the present claims. As discussed above, neither Salmimaa nor Nokia teaches the claimed feature “wherein the first preview persists on the main screen when a subsequent second preview is displayed for a subsequent event.”

Hellebust does not teach any modification of an icon to display a preview. Hellebust does not teach or suggest the claimed feature of the first preview persisting when a subsequent second preview is displayed for a subsequent event. Thus, a combination of Salmimaa and Nokia with Hellebust still does not arrive at all the features claimed.





**APPENDIX I**

Page 2 from user manual of Nokia Communicator 9210i is provided on the following page.

The Nokia 9210i Communicator consists of two parts: the phone and the communicator interface. The phone is on the device cover and the communicator interface is inside the cover, both as shown in Figures 1 and 2.

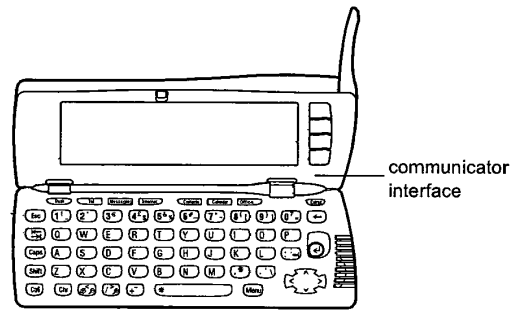


Figure 2

Both these parts use the same information from the memory of the communicator - they are not separate devices. For example, the phone uses the names and phone numbers stored in the Contacts directory of the communicator interface, and the communicator interface uses the phone for voice and data communications, for example, when sending and receiving faxes and connecting to the Internet.

■ **Tip:** The communicator interface has no power on/off button - it switches itself on when you open the cover and switches off when you close the cover.

The communicator interface contains many organiser and communications applications. The large keyboard, command buttons, and display make using the applications easy.

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<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875				Application or Docket Number <b>10/784,781</b>		Filing Date <b>02/24/2004</b>		<input type="checkbox"/> To be Mailed			
<b>APPLICATION AS FILED – PART I</b>											
(Column 1)			(Column 2)			SMALL ENTITY <input type="checkbox"/>		OR		OTHER THAN SMALL ENTITY	
FOR		NUMBER FILED	NUMBER EXTRA		RATE (\$)	FEE (\$)	OR		RATE (\$)	FEE (\$)	
<input type="checkbox"/> BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>		N/A	N/A		N/A				N/A		
<input type="checkbox"/> SEARCH FEE <small>(37 CFR 1.16(k), (l), or (m))</small>		N/A	N/A		N/A		N/A				
<input type="checkbox"/> EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>		N/A	N/A		N/A		N/A				
TOTAL CLAIMS <small>(37 CFR 1.16(i))</small>		minus 20 =	*		X \$ =		OR		X \$ =		
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>		minus 3 =	*		X \$ =		OR		X \$ =		
<input type="checkbox"/> APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>		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).									
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT <small>(37 CFR 1.16(j))</small>											
* If the difference in column 1 is less than zero, enter "0" in column 2.											
<b>APPLICATION AS AMENDED – PART II</b>											
(Column 1)			(Column 2)			SMALL ENTITY		OR		OTHER THAN SMALL ENTITY	
AMENDMENT	<b>07/08/2009</b>	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR		RATE (\$)	ADDITIONAL FEE (\$)
	Total <small>(37 CFR 1.16(o))</small>	* 29	Minus	** 20	= 9	X \$ =				X \$2=	468
	Independent <small>(37 CFR 1.16(h))</small>	* 2	Minus	***3	= 0	X \$ =		X \$220=	0		
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>										
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>										
						TOTAL ADD'L FEE		OR		TOTAL ADD'L FEE	<b>468</b>
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR		RATE (\$)	ADDITIONAL FEE (\$)
	Total <small>(37 CFR 1.16(o))</small>	*	Minus	**	=	X \$ =				X \$ =	
	Independent <small>(37 CFR 1.16(h))</small>	*	Minus	***	=	X \$ =		X \$ =			
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>										
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>										
						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: /ROSS W. BROWN/											

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.**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,781	02/24/2004	Gerhard D. Klassen	16813-IUS	2200
20988	7590	07/10/2009	EXAMINER	
OGILVY RENAULT LLP 1, Place Ville Marie SUITE 2500 MONTREAL, QC H3B 1R1 CANADA			HEFFINGTON, JOHN M	
			ART UNIT	PAPER NUMBER
			2179	
			MAIL DATE	DELIVERY MODE
			07/10/2009	PAPER

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.

<b>Interview Summary</b>	<b>Application No.</b> 10/784,781	<b>Applicant(s)</b> KLASSEN ET AL.	
	<b>Examiner</b> JOHN M. HEFFINGTON	<b>Art Unit</b> 2179	

All participants (applicant, applicant's representative, PTO personnel):

- (1) JOHN M. HEFFINGTON. (3)\_\_\_\_\_.
- (2) Christine Wong 62935. (4)\_\_\_\_\_.

Date of Interview: 07 July 2009.

Type: a)  Telephonic b)  Video Conference  
c)  Personal [copy given to: 1)  applicant 2)  applicant's representative]

Exhibit shown or demonstration conducted: d)  Yes e)  No.  
If Yes, brief description: \_\_\_\_\_.

Claim(s) discussed: 1.

Identification of prior art discussed: Hellebust et al. (US 2005/0248437 A1), Salmimaa et al (US 2002/0160817 A1), Wagner (US 2004/0155908 A1).

Agreement with respect to the claims f)  was reached. g)  was not reached. h)  N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: The applicant requested and the examiner granted an interview to discuss the status of the instant invention. Amendments to the claims were discussed to overcome the cited prior art. The discussed amendments would require further search and consideration by the examiner. No agreement was reached on the claims.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

/Steven B Theriault/  
Primary Examiner, Art Unit 2179

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 10/784,781

Art Unit: 2109

Filed: 02/24/2004

Confirmation No.: 2200

Applicant: Gerhard D. Klassen et al.

Examiner: Heffington, John M.

Title: PREVIEWING A NEW EVENT ON A SMALL SCREEN DEVICE

Docket No.: 16813-1US

Customer No.: 020988

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MS AMENDMENT  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, V.A. 22313-1450

Dear Sir/Madam:

**STATEMENT OF SUBSTANCE OF INTERVIEW**

The Applicant thanks the Examiner for the interview of July 7, 2009 and the Interview Summary dated July 10, 2009. The Applicant agrees with the Examiner's summary. In addition, the Applicant had filed a Statement of the Substance of the Interview with the response dated July 8, 2009. This statement is repeated below for ease of referral:

During the interview, the features of the claims were discussed as well as the references cited. The Examiner agreed that the feature of a delay before displaying a preview in response to a user action (as described in paragraph [0050] of the description) and the feature of a persistent preview (as described in paragraphs [0049] and [0063] of the description) would distinguish the present claims over the cited references. The Applicant thanks the Examiner for this and has amended the claims taking this into account.

The Examiner also suggested that because the Nokia Communicator has a large keyboard when opened, the larger display may be correspondingly considered a large





## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	5822399
<b>Application Number:</b>	10784781
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	2200
<b>Title of Invention:</b>	Previewing a new event on a small screen device
<b>First Named Inventor/Applicant Name:</b>	Gerhard D. Klassen
<b>Customer Number:</b>	20988
<b>Filer:</b>	Christine Y. Wong/Kelly Trewin
<b>Filer Authorized By:</b>	Christine Y. Wong
<b>Attorney Docket Number:</b>	16813-1US
<b>Receipt Date:</b>	04-AUG-2009
<b>Filing Date:</b>	24-FEB-2004
<b>Time Stamp:</b>	10:34:31
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	no
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### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Applicant summary of interview with examiner	Statement_of_substance_of_interview.pdf	66046 <small>78d7301deee08629d847e1393167dd4ea5d69eec</small>	no	2

### Warnings:

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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.
10/784,781	02/24/2004	Gerhard D. Klassen	16813-1US	2200
20988	7590	10/05/2009	EXAMINER	
OGILVY RENAULT LLP 1, Place Ville Marie SUITE 2500 MONTREAL, QC H3B 1R1 CANADA			HEFFINGTON, JOHN M	
			ART UNIT	PAPER NUMBER
			2179	
			MAIL DATE	DELIVERY MODE
			10/05/2009	PAPER

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



### **DETAILED ACTION**

This action is in response to the request for continued examination filed 4 August 2009.

Claims 1-20 have been previously canceled. Claim 26 and 35 have been canceled.

Claims 21, 28, 33, 36 and 37 have been amended. Claims 42-51 have been added.

Claims 21-25, 27-34 and 36-51 are pending and have been considered below.

### ***Response to Arguments***

Applicant's arguments with respect to claims 21-51 have been considered but are moot in view of the new ground(s) of rejection.

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4 August 2009 has been entered.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 51 recites the limitation "The method of claim 36 wherein the icon modifying component" in claim 36. There is insufficient antecedent basis for this limitation in the claim. Claim 36 is cites a GUI while claim 51 cites a method step.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 21-25, 27-30, 33-34, 36-39, 43, 45, 46, 48, 50 and 51 are rejected under 35 U.S.C. 102(e) as being anticipated by Wagner (US 2004/0155908 A1).

1-20. (Previously cancelled)

Claim 21: Wagner discloses a method for providing notifications of new events:

- a. on a wireless communication device having a small display (paragraph 0003),
- b. the wireless communication device having a graphical user interface 'GUI' displayed on the display (paragraph 0003),

- c. the GUI having a main screen comprising an application portion for displaying icons for respective applications (paragraph 0050, [The screen is divided into a main portion and secondary portion.]),
- d. for execution on the wireless communication device (paragraphs 0050, [services and applications], 0101, [initiating a service or application]), the method comprising:
- e. providing on the main screen and in the application portion a plurality of application icons each representing an application on at the wireless device and each being invocable to launch its respective application (paragraphs 0050, [user selectable icons for services and application, 0101, [initiating a service or application]], and
- f. in response to a new event in respect of one of the applications, visually modifying the respective application icon in the application portion of the main screen to notify of the new event (paragraph 0060, [when new news has arrived, the news paper rolls down, a mail icon displays a counter to indicate the number of unread messages]), and,
- g. to display a first preview of a content of the new event (paragraph 0059, figure 8A, [a news icon may display a current headline, for example "Tech Markets Boom"]); wherein
- h. the application icons are maintained on the main screen continuously (paragraph 0056, [while the positions of the application icons may change based on context, the icons remain continuously]) ; and wherein,

- i. the first preview persists on the main screen when a subsequent second preview is displayed for a subsequent event (figure 8A, [as can be seen, the current headline persists while other events have been indicated in association with other service or application icons]).

Claim 22: Wagner discloses the method of claim 21 and Wagner further discloses invoking the one application in the application portion in response to the visually modified icon (paragraphs 0060, [the news paper unrolls to indicate new news], 0065, [the user decides to read the news by selecting the news data service]).

Claim 23: Wagner discloses the method of claim 21 and Wagner further discloses monitoring the one application in the application portion to determine an occurrence of the new event (paragraph 0059, [the service management system presents specific information regarding the state of that particular service or application]).

Claim 24: Wagner discloses the method of claim 21 and Wagner further discloses: determining a visual modification for the icon of the one application icon in the application portion in response to the new event; and using said visual modification when visually modifying (paragraph 0059, 0060, [information labels, animated icons and counters]).



Claim 25: Wagner discloses the method of claim 24 and Wagner further discloses said step of determining a visual modification comprises maintaining a count of new events for the one application in the application portion (paragraph 0060, [a count of unread email messages]).

26. (Cancelled)

Claim 27: Wagner discloses the method of claim 21 and Wagner further discloses said displaying the first preview is responsive to a user action (paragraphs 0065, [the user reads the news by selecting the news service icon], 0054, [the system detects user usage patterns and display services in a manner that the user is most likely to use the service], 0059, [the system has detected that the user has a preference for business news and therefore, displays the preview "Tech Markets Boom"]).

Claim 28: Wagner discloses the method of claim 27 and Wagner further discloses said displaying the first preview comprises visually modifying the icon to include a dialog box over a portion of the main screen (figure 8A, [As can be seen in the figure, the previews, for example, the news preview is displayed in a box.]).

Claim 29: Wagner discloses the method of claim 21 and Wagner further discloses: in response to an activation of the one application in the application portion having its icon visually modified to notify of the new event, automatically navigating through the one

application to the new event (paragraphs 0065-0067, figures 5B-5E, 8A, [the user navigates through the sports section to the desired information]).

Claim 30: Wagner discloses the method of claim 21 and Wagner further discloses said wireless device comprises at least one of a data communication device and a voice communication device; wherein at least some of said plurality of applications manage communications capabilities associated with the wireless device and wherein said events of said at least some of said plurality of applications comprise communication events (paragraphs 0050, [cellular phones and PDAs], 0074, [telephone call, i.e. voice, calendaring, instant messaging, news, reports, movie services, mapping services]).

Claims 33, 34 and 36-39: Claims 33, 34 and 36-39 represent the graphical user interface for carrying out the steps of the method of claims 21, 25, 27, 28, 22 and 30, respectively, and are rejected under that same rationale.

Claim 43: Wagner discloses the method of claim 21 and Wagner further discloses the application icons occupy a major portion of the main screen (paragraph 0050, [the icons are displayed in a main portion of the screen]).

Claim 45: Wagner discloses the method of claim 21 and Wagner further discloses the subsequent event is in respect of a second of the applications different from the one of the applications (paragraphs 0059, figure 8A, [the system detects a preference for the

kind of news for a user and displays a headline preview in relation to the news icon.],  
0065-0067, [the user reads the news and the system detects that the user likes to read  
hockey reports and adds a hockey icon is added to the display. Hockey updates are  
displayed in relation to the hockey icon.]

Claim 46: Wagner discloses the method of claim 27 and Wagner further discloses there  
is a delay before displaying the first preview in response to the user action (paragraphs  
0059, 0065-0067, [the system must detect a preference my monitoring usage patterns.  
Displaying a preview of a news item would not happen immediately and detecting the  
preference would occur over a period of time.]).

Claim 48: Claim 48 discloses the GUI for carrying out the method of claim 43 and is  
reject under that same rational.

Claim 50: Claim 50 discloses the GUI for carrying out the method of claim 45 and is  
reject under that same rational.

Claim 51: Claim 51 discloses a method step similar to the method of claim 46 and is  
reject under that same rational.

***Claim Rejections - 35 USC § 103***

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 negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 31, 32, 40, 41, 44 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner (US 2004/0155908 A1).

Claim 31: Wagner discloses the method of claim 21 but Wagner does not disclose, in response to a plurality of new events, visually modifying the icon of the one application in the application portion to notify of the plurality of new events. However, Wagner discloses detecting a plurality of new events and visually modifying the icon of the one application in the application portion to notify of a new event and indicating another event (figure 8A). That is, the movie icon shows an event, "Movie invite sent 7:46 am",

and a field indicating "No response". It would have been obvious to display an indication that a response had been sent. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to add in response to a plurality of new events, visually modifying the icon of the one application in the application portion to notify of the plurality of new events to Wagner. One would have been motivated to add in response to a plurality of new events, visually modifying the icon of the one application in the application portion to notify of the plurality of new events to Wagner in order to remind the user that 1) a movie invite has been sent and, 2) to indicate to the user that he should respond if he has not yet responded and to remind the user that he has responded, thereby improving the operation and functionality of Wagner.

Claim 32: Wagner discloses the method of claim 31 but Wagner does not disclose said visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of each of the plurality of new events. However, Wagner discloses detecting a plurality of new events and visually modifying the icon of the one application in the application portion comprises displaying a preview of a content one new events (current headline is a preview of the new article displayed with the News icon, or the movie icon shows an event, "Movie invite sent 7:46 am", and a field indicating "No response".), but does not disclose displaying a preview of the content of each of the new events. (figure 8A). However, it would have been obvious to display an indication that a response had been sent or to display a headline

for each new article that is received by the news application. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to add said visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of each of the plurality of new events to Wagner. One would have been motivated to add said visually modifying the icon of the one application in the application portion comprises displaying a preview of a content of each of the plurality of new events to Wagner in order to remind the user that 1) a movie invite has been sent and, 2) to indicate to the user that he should respond if he has not yet responded and to remind the user that he has responded, thereby improving the operation and functionality of Wagner.

Claims 40 and 41: Claims 40 and 41 discloses the graphical user interface for carrying out the steps of the method of claims 31 and 32, respectively, and are rejected under that same rational.

Claim 44: Wagner discloses the method of claim 21 but does not disclose the first preview persists until the new event is opened. However, Wagner discloses receiving an event of "Movie invite sent 7:46 am" and also indicating that the user has not yet responded (figure 8A). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to add the first preview persists until the new event is opened to Wagner. One would have been motivated to add the first preview persists until the new event is opened to Wagner because the movie invite obviously

requires a response and if the movie invite is removed, then the user could forget to issue a response, therefore, it would have been obvious to maintain the display of the movie invite event until the user responds.

Claim 49: Claim 49 discloses the GUI for carrying out the steps of the method of claim 44 and is reject under that same rational.

Claims 42 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner (US 2004/0155908 A1) in view of Hirayama (US 2002/0035613 A1).

Claim 42: Wagner discloses the method of claim 21 but does not disclose the GUI further comprises a status portion for displaying wireless communication device status information. However, Hirayama discloses a wireless communication device that displays device status information on the device display at the upper part of the display, i.e. a status portion (figures 4A-4B, 5A-5D, 6A-6C). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention, with the teaching of Wagner and Hirayama in front of him, to add the GUI further comprises a status portion for displaying wireless communication device status information to Wagner. One would have been motivated to add the GUI further comprises a status portion for displaying wireless communication device status information to Wagner because, as disclosed in Wagner, the context module keeps track of different aspects of the users current context, for example, one aspect is the user's network presence, such

as whether the user has just lost a signal, or has their phone ringer off, therefore, it would be useful in Wagner to show the status of the signal strength or the ringer status.

Claim 47: Claim 47 discloses the GUI for carrying out the method of claim 42 and is reject under that same rational.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN HEFFINGTON whose telephone number is (571)270-1696. The examiner can normally be reached on 8:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on 571-272-4847. 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.



Application/Control Number: 10/784,781  
Art Unit: 2179

Page 14

/Sara M Hanne/  
Primary Examiner, Art Unit 2179

9/23/09  
JMH

<b>Notice of References Cited</b>	Application/Control No. 10/784,781	Applicant(s)/Patent Under Reexamination KLASSEN ET AL.	
	Examiner JOHN HEFFINGTON	Art Unit 2179	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A US-2004/0155908	08-2004	Wagner, Annette M.	345/854
*	B US-2002/0035613	03-2002	Hirayama, Naofumi	709/218
	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				
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	P				
	Q				
	R				
	S				
	T				

**NON-PATENT DOCUMENTS**

*	Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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\*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.

<b><i>Index of Claims</i></b> 	<b>Application/Control No.</b> 10784781	<b>Applicant(s)/Patent Under Reexamination</b> KLASSEN ET AL.
	<b>Examiner</b> Heffington, John M	<b>Art Unit</b> 2179

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


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

CLAIM		DATE									
Final	Original	03/05/2007	12/07/2007	03/23/2008	10/17/2008	04/07/2009	09/23/2009				
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	35		✓	✓	✓	-	-				
	36		✓	✓	✓	✓	✓				

<b>Index of Claims</b> 	<b>Application/Control No.</b> 10784781	<b>Applicant(s)/Patent Under Reexamination</b> KLASSEN ET AL.
	<b>Examiner</b> Heffington, John M	<b>Art Unit</b> 2179

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

<input type="checkbox"/> Claims renumbered in the same order as presented by applicant		<input type="checkbox"/> CPA		<input type="checkbox"/> T.D.		<input type="checkbox"/> R.1.47			
CLAIM		DATE							
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	38		✓	✓	✓	✓	✓		
	39		✓	✓	✓	✓	✓		
	40		✓	✓	✓	✓	✓		
	41		✓	✓	✓	✓	✓		

<b>Search Notes</b>  	<b>Application/Control No.</b>  10784781	<b>Applicant(s)/Patent Under Reexamination</b>  KLASSEN ET AL.
	<b>Examiner</b>  Heffington, John M	<b>Art Unit</b>  2179

<b>SEARCHED</b>			
<b>Class</b>	<b>Subclass</b>	<b>Date</b>	<b>Examiner</b>
715	700	3/1/2007	JMH

<b>SEARCH NOTES</b>		
<b>Search Notes</b>	<b>Date</b>	<b>Examiner</b>
EAST Search	3/1/2007	JMH
EAST Search (update)	12/7/2007	JMH
EAST Search (update)	3/23/2008	JMH
NPL Search	3/23/2008	JMH
EAST Search	10/16/08	JMH
EAST Search	4/7/09	JMH
EAST Search	9/22/09	JMH

<b>INTERFERENCE SEARCH</b>			
<b>Class</b>	<b>Subclass</b>	<b>Date</b>	<b>Examiner</b>

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**EAST Search History****EAST Search History (Prior Art)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	12	("20040155908").PN. or ("20020160817"   "20050248437").PN. or ("20050120306"   "20060020904"   "20060030295").PN.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/09/19 17:30
S2	2	("7493573").PN.	US-PGPUB; USPAT; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2009/09/21 09:27
S3	9	("20020035613"   "20040142720"   "20060161865"   "5657049"   "5896133"   "6133898"   "6668177"   "6990534").PN. OR ("7493573").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2009/09/21 09:29

9/ 23/ 2009 11:21:51 AM

C:\ Documents and Settings\ jheffington\ My Documents\ OA Folders\ 10784781  
\ SearchHistory7.wsp

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 10/784,781

Art Unit: 2179

Filed: 02/24/2004

Confirmation No.: 2200

Applicant: Gerhard D. Klassen et al.

Examiner: Heffington, John M.

Title: PREVIEWING A NEW EVENT ON A SMALL SCREEN DEVICE

Docket No.: 16813-1US

Customer No.: 020988

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MS AMENDMENT  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, V.A. 22313-1450

Dear Sir/Madam:

**RESPONSE TO OFFICE ACTION**

This is in response to the Office Action of October 5, 2009.

**Amendments to the Claims** appear on page 2.

**Remarks/Arguments** appear on page 7.

**AMENDMENTS TO THE CLAIMS**

This listing of the claims replaces all prior versions, and listings, of claims in the application:

**Listing of Claims**

1-20. (Cancelled)

21. (Currently amended) A method for providing notifications of new events on a wireless communication device having a small display, the wireless communication device having a graphical user interface 'GUI' displayed on the display, the GUI having a main screen comprising an application portion for displaying icons for respective applications for execution on the wireless communication device, the method comprising:

providing on the main screen and in the application portion a plurality of application icons each representing an application at the wireless device and each being invocable to launch its respective application; and

in response to a new event in respect of one of the applications, visually modifying the respective application icon in the application portion of the main screen to notify of the new event; [[and]]

in response to a user selection of the respective application icon, [[to display]] displaying a first preview of a content of the new event, the first preview not being displayed prior to the user selection;

wherein the application icons are maintained on the main screen continuously; and

wherein the first preview persists on the main screen when a subsequent second preview is displayed, in response to a subsequent user selection, for a subsequent event.



22. (Original) The method of claim 21 comprising invoking the one application in the application portion in response to the visually modified icon.
23. (Original) The method of claim 21 comprising monitoring the one application in the application portion to determine an occurrence of the new event.
24. (Original) The method of claim 21 further comprising:
- determining a visual modification for the icon of the one application icon in the application portion in response to the new event; and
  - using said visual modification when visually modifying.
25. (Original) The method of claim 24 wherein said step of determining a visual modification comprises maintaining a count of new events for the one application in the application portion.
26. (Cancelled)
27. (Cancelled)
28. (Currently amended) The method of claim ~~[[27]]~~ 21 wherein said displaying the first preview comprises visually modifying the icon to include a dialog box over a portion of the main screen.
29. (Original) The method of claim 21 further comprising: in response to an activation of the one application in the application portion having its icon visually modified to notify of the new event, automatically navigating through the one application to the new event.
30. (Original) The method of claim 21 wherein said wireless device comprises at least one of a data communication device and a voice communication device; wherein at least some of said plurality of applications manage communications capabilities associated with the wireless device and wherein said events of said at least some of said plurality of applications comprise communication events.

31. (Currently amended) The method of claim 21 further comprising, in response to a plurality of new events, visually modifying the [[icon of the one]] respective application icon in the application portion to notify of the plurality of new events.

32. (Currently amended) The method of claim 31 wherein said visually modifying the [[icon of the one]] respective application icon in the application portion comprises displaying a preview of a content of each of the plurality of new events, in response to the user selection of the respective application icon.

33. (Currently Amended) A graphical user interface 'GUI' for a wireless communication device having a small display and a controller coupled to a memory, the memory storing a plurality of applications, the graphical user interface 'GUI' being provided for the applications and displayed on the display, the GUI comprising:

a main screen for displaying on the display, the main screen comprising an application portion for displaying a plurality of application icons associated with a respective application in the plurality of applications and each being invocable to launch its respective application;

at least one monitoring component to determine the occurrence of new events of the applications; and

at least one icon modifying component to visually modify at least one of the application icons in the application portion of the main screen in response to a new event in respect of at least one of the applications to notify of the new event and to display a first preview of a content of the new event in response to a user selection of the one of the application icons, the first preview not being displayed prior to the user selection;

wherein the application icons are maintained on the main screen continuously;  
and

wherein the first preview persists on the main screen when a subsequent second preview is displayed, in response to a subsequent user selection, for a subsequent event.

34. (Original) The GUI of claim 33 wherein said GUI is configured to maintain a count of new events for respective applications and said icon modifying component is configured to modify in response to said count.

35. (Cancelled)

36. (Cancelled)

37. (Currently amended) The GUI of claim [[36]] 33 wherein said display of the first preview comprises visually modifying the icon to include a dialog box over a portion of the main screen.

38. (Original) The GUI of claim 33, wherein in response to a user interaction with the one of the application icons in the application portion, said GUI is configured to invoke the application associated with the one of the application icons to display the new event.

39. (Original) The GUI of claim 33 wherein said wireless device comprises at least one of a wireless data communication device and a wireless voice communication device; wherein at least some of said plurality of applications are configured to manage communications capabilities associated with the wireless device and wherein said new events of said at least some of said plurality of applications comprise communication events.

40. (Original) The GUI of claim 33 wherein the icon modifying component is configured to modify the one of the application icons in the application portion to notify of a plurality of new events.

41. (Currently amended) The GUI of claim 40 wherein the icon modifying component is configured to [[play]] display a preview of a content of each new event in the plurality of new events, in response to the user selection of the one of the application icons.

42. (Previously presented) The method of claim 21 wherein the GUI further comprises a status portion for displaying wireless communication device status information.
43. (Previously presented) The method of claim 21 wherein the application icons occupy a major portion of the main screen.
44. (Previously presented) The method of claim 21 wherein the first preview persists until the new event is opened.
45. (Previously presented) The method of claim 21 wherein the subsequent event is in respect of a second of the applications different from the one of the applications.
46. (Currently amended) The method of claim [[27]] 21 wherein there is a brief delay before displaying the first preview in response to the user [[action]] selection of the respective application icon.
47. (Previously presented) The GUI of claim 33 further comprising a status portion for displaying wireless communication device status information.
48. (Previously presented) The GUI of claim 33 wherein the application icons occupy a major portion of the main screen.
49. (Previously presented) The GUI of claim 33 wherein the first preview persists until the new event is opened.
50. (Previously presented) The GUI of claim 33 wherein the subsequent event is in respect of a second of the applications different from the one of the applications.
51. (Currently amended) The [[method]] GUI of claim [[36]] 33 wherein the icon modifying component is configured to display the first preview in response to the user [[action]] selection after a brief delay.

**REMARKS/ARGUMENTS**

Claims 21-25, 28-34 and 37-51 are pending. Claims 1-20, 26 and 35 were previously cancelled. No admission or representation is made by the present argument other than that explicitly provided herein.

**Claim Amendments**

Independent claim 21 has been amended to recite “in response to a user selection of the respective application icon, displaying a first preview, the preview not being displayed prior to the user selection” and “a subsequent second preview is displayed, in response to a subsequent user selection.” Support for these amendments can be found in former claim 27 and at least in paragraph [0050] of the description.

Independent claim 33 has been amended similar to claim 1 and finds at least the same support.

Claims 27 and 36 have been cancelled and the dependencies of claims 28, 37, 46 and 51 have been amended accordingly.

Claims 31, 32 and 41 have been amended to agree with the amendments to the independent claims.

Claims 46 and 51 have been amended to recite “user selection.” in agreement with the independent claims. Claims 46 and 51 have been further amended to recite a “brief delay,” support for which can be found at least in paragraph [0050] of the description.

Claim 51 has been further amended to correctly recite “The GUI.”

**Claim Rejections - 35 U.S.C. 112**

The Examiner has rejected claim 51 as reciting a “method,” which has insufficient antecedent basis. Claim 51 has been corrected to recite a “GUI.”

**Claim Rejections - 35 U.S.C. 102**

Claims 21-25, 27-30, 33-34, 36-39, 43, 45, 46, 48, 50 and 51 stand rejected under 35 U.S.C. 102(e) having regard to U.S. Patent Publication No. 2004/0155908 to Wagner (hereinafter, "Wagner"). The Applicant respectfully disagrees for at least the reasons provided below.

Independent claim 21 recites: "in response to a user selection of the respective application icon, displaying a first preview, the preview not being displayed prior to the user selection." This feature corresponds to former claim 27, however the formerly recited "user action" has been specified to "user selection." Claim 21 also clarifies that the preview is not displayed until the user selects the application icon. That is, while the application icon is displayed in the application portion from the start, there is no preview shown for any of the application icons initially. Only after the user selects one of the application icons is a preview displayed for the selected application icon. Similar features are recited in independent claim 33. The remaining claims are dependent on the independent claims and therefore also include at least these features.

With regards to former claim 27, the Examiner had cited paragraphs [0065], [0054] and [0059] of Wagner as teaching displaying the first preview responsive to a user action. The Applicant submits at least the feature now recited in claim 21 is not taught or suggested by Wagner.

The Examiner equates the label "Tech markets boom" as shown in figure 8A of Wagner with the presently claimed preview. However, as described in paragraph [0059] of Wagner, this is an icon label, which is merely text appended to an icon for identifying the icon, and is not a preview of a content of a new event associated in respect of an application. A preview in the sense of the present application includes the content of a new event, for example a portion of the text of a newly-arrived email. In contrast, a label describes the icon, or at best provides notification of a new event, but does not include the content of the new event. For example, in figure 8A of Wagner, other labels include "4 Messages" and "10 am Johnson," both of which describe an event, but do not display

any content of the event, such as the content of the 4 messages or the content of meeting notes for the scheduled meeting with Johnson.

Because the icon labels of Wagner are not equivalent to the previews of the present claims, Wagner also fails to teach or suggest the claimed feature of “wherein the first preview persists on the main screen when a subsequent second preview is displayed, in response to a subsequent user selection, for a subsequent event.” Even if the label “Tech markets boom” were to be considered a first preview, which the Applicant disagrees with, there is no second preview shown in figure 8A. As explained above, none of the other icon labels provide a second preview, since none of the other icon labels provide any content of an event. Thus Wagner fails to teach or suggest at least this feature, and this failure is further evidence that the labels of Wagner are not equivalent to the first and second previews of the present claims.

Even if the label of Wagner were considered equivalent to the preview of the present claims, Wagner does not teach or suggest displaying the label in the manner required by the present claims. In Wagner, service icons are displayed in an arrangement according to the user’s usage patterns. Thus, repeated selection of a news service over time results in the news service icon being automatically displayed in a more prominent position, with an icon label, such as “Tech Markets Boom,” being already displayed in association with the news service icon. In contrast, in the present claims, the preview is not displayed prior to a user selection, and is only displayed for the selected application icon in response to a user selection of that application icon. This avoids cluttering the display with numerous previews for events in applications that the user may have no interest in, which may be useful for a device having a small display, as in the present application.

Further, the service icons and icon labels in Wagner do not respond to a user selection in the manner of the present application. According to Wagner, multiple selection of an icon is processed over time to detect a user’s usage pattern, and only then are the service icons accordingly displayed, with their associated icon labels. In contrast, as shown in figure 6 of the present application and described in paragraph [0050], the

claimed method and GUI is directly responsive to a user selection of an application icon. Paragraph [0050] states: “Upon selection of icon 306...a message preview 604 of at least a portion of the unread message is displayed.” There is no analysis of a user’s usage pattern required to display the presently claimed preview, in clear contrast to Wagner. This is because while Wagner is concerned with organizing service icons according to the user’s long-term usage pattern, the present application is concerned with simply providing information to the user directly in response to the user’s single selection.

In view of the foregoing arguments, the Applicant submits that Wagner fails to teach or suggest all the features of the present claims. The present claims are therefore all patentable over Wagner for at least these reasons.

The dependent claims recite further features that are not taught or suggested by Wagner.

Claims 28 and 37 recite the feature of “visually modifying the icon to include a dialog box over a portion of the main screen.” The Examiner cites figure 8A of Wagner as teaching a dialog box, noting that the news service icon and its label are displayed in a box. However, this is not a dialog box as would be understood by a person skilled in the art. A dialog box is a temporary window that appears over the main screen, which displays information to the user or requests a user response. In contrast, the box shown in figure 8A is a selection highlight of the icon, as described in paragraph [0088] of Wagner, and is not a dialog box that is displayed over the main screen. Therefore, claims 28 and 37 are patentable over Wagner for at least this further reason.

Claims 46 and 51 recite the feature of “a brief delay before displaying the first preview in response to the user selection.” A person skilled in the art would understand that what is meant by a brief delay is simply a short pause, at most a few seconds, between selection of the application icon and display of the preview, such as described in paragraph [0050] of the present description. Wagner, in contrast, requires a lengthy process, charting a user’s usage pattern over days, in order for the system to analysis the selections and from there detect a user’s usage patterns. This lengthy process clearly is



not a brief delay as required in claims 46 and 51 and as understood by a person skilled in the art. Therefore, claims 46 and 51 are patentable over Wagner for at least this further reason.

For at least the above reasons, Wagner fails to teach or suggest all the features of the present claims. The Applicant therefore submits that the present claims are all patentable over Wagner. The Examiner is respectfully asked to withdraw this rejection.

**Claims Rejections - 35 U.S.C. 103**

Claims 31, 32, 40, 41, 44 and 49 stand rejected under 35 U.S.C. 103(a) having regard to Wagner. The Applicant respectfully disagrees for at least the reasons provided below.

As explained above, Wagner fails to teach or suggest all the features of the independent claims. Claims 31, 32, 40, 41, 44 and 49 are dependent on the independent claims and therefore also include features not taught or suggested by Wagner. For at least this reason, Claims 31, 32, 40, 41, 44 and 49 are all patentable over Wagner.

Claims 32 and 41 also recite additional features not taught or suggested by Wagner. Claim 32 recites the feature of “displaying a preview of a content of each of the plurality of new events.” Similarly, claim 41 recites the feature of “the icon modifying component is configured to display a preview of a content of each new event in the plurality of new events.” The Examiner admits that the feature of displaying a preview of a content of a plurality of new events is not taught by Wagner.

The Examiner alleges that “it would have been obvious to display an indication that a response had been sent or to display a headline for each new article that is received by the news application.” The Examiner alleges that a person skilled in the art would have been motivated to modify the teachings of Wagner in the manner suggested “in order to remind the user that 1) a movie invite has been sent and, 2) to indicate to the user that he should respond if he has not yet responded and to remind the user that he has responded, thereby improving the operation and functionality of Wagner.”

The Examiner appears to have misinterpreted the claimed “preview.” As required by the independent claims, a preview includes “a content of the new event.” That is, the preview is not simply a notification or a description of the new event, but provides the actual content of the event. In the case of a movie invite, for example, a preview of the content of a response to the invite may include the text of the response. In contrast, “an indication that a response had been sent” is simply an indication of the current state of a service, and is not a preview of a content of a new event. Similarly, a reminder that “a movie invite has been sent” and “to indicate to the user that he should respond” are simply reminders of the current state of a service - in this, case an unresponded state - and does not provide any preview of a content of a new event.

As such, the Applicant submits that a clear reasoning or motivation for the finding of obviousness has not been shown. There is no reason for a person skilled in the art to make the modification suggested. Indeed, displaying a headline for each new article that is received by the news application, as suggested by the Examiner, would make the icon label of Wagner extremely long, obscuring the majority of the display. This result clearly goes against the aim of Wagner, which is to provide an easy and intuitive user experience on a mobile device. A person skilled in the art would have no reason or motivation to modify the teachings of Wagner in the manner suggested, and in fact would understand that such a modification goes against the teachings of Wagner. Therefore, claims 32 and 41 are patentable over Wagner for at least this further reason.

Claims 42 and 47 stand rejected under 35 U.S.C. 103(a) having regard to Wagner in view of U.S. Patent Publication No. 2002/0035613 to Hirayama (hereinafter “Hirayama”). The Applicant respectfully disagrees for at least the reasons provided below.

The Examiner admits that Wagner does not teach a status portion for displaying wireless communication device status information, but relies on a combination with Hirayama to arrive at this feature. However, Hirayama does not remedy all the above-identified failings of Wagner.

Hirayama does not teach or suggest the features of “in response to a user selection of the respective application icon, displaying a first preview of a content of the new event, the first preview not being displayed prior to the user selection” and “wherein the first preview persists on the main screen when a subsequent second preview is displayed, in response to a subsequent user selection, for a subsequent event,” as required in the independent claims. In fact, Hirayama is not at all concerned with visually modifying application icons in response to a new event, let alone provide any information, such as a preview, of the new event. As explained above, Wagner also fails to teach or suggest at least these features of the independent claims. Therefore, a combination of Wagner and Hirayama fails to arrive at all the features of the independent claims.

Claims 42 and 47 are dependent on independent claims 21 and 33, respectively, and also include all the features of the independent claims. Therefore, claims 42 and 47 include features not taught or suggested by the combination of Wagner and Hirayama, and are patentable over Wagner and Hirayama for at least this reason. The Examiner is respectfully asked to withdraw this rejection.

### **Conclusion**

It is believed that the Applicant has responded to each ground of rejection raised by the Examiner, and that for at least the reasons cited above the claims, as presented, are in condition for immediate allowance. Favourable reconsideration and allowance of the application are respectfully requested. Should the Examiner have any questions in connection with the Applicant’s submissions, please contact the undersigned.



## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	6677040
<b>Application Number:</b>	10784781
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	2200
<b>Title of Invention:</b>	Previewing a new event on a small screen device
<b>First Named Inventor/Applicant Name:</b>	Gerhard D. Klassen
<b>Customer Number:</b>	20988
<b>Filer:</b>	Christine Y. Wong/Kelly Trewin
<b>Filer Authorized By:</b>	Christine Y. Wong
<b>Attorney Docket Number:</b>	16813-1US
<b>Receipt Date:</b>	21-DEC-2009
<b>Filing Date:</b>	24-FEB-2004
<b>Time Stamp:</b>	12:14:08
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	no
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### File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment/Req. Reconsideration-After Non-Final Reject	Response.pdf	101120 <small>8c7499a7f3635814eb2d9b3a1df26287ac65884f</small>	no	14

### Warnings:

### Information:

Total Files Size (in bytes):

101120

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.

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.

<b>PATENT APPLICATION FEE DETERMINATION RECORD</b> Substitute for Form PTO-875					Application or Docket Number <b>10/784,781</b>		Filing Date <b>02/24/2004</b>		<input type="checkbox"/> To be Mailed												
<b>APPLICATION AS FILED – PART I</b>																					
(Column 1)			(Column 2)			SMALL ENTITY <input type="checkbox"/>		OR			OTHER THAN SMALL ENTITY										
FOR		NUMBER FILED		NUMBER EXTRA		RATE (\$)		FEE (\$)		OR		RATE (\$)		FEE (\$)							
<input type="checkbox"/> BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>		N/A		N/A		N/A				OR		N/A									
<input type="checkbox"/> SEARCH FEE <small>(37 CFR 1.16(k), (l), or (m))</small>		N/A		N/A		N/A				OR		N/A									
<input type="checkbox"/> EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>		N/A		N/A		N/A				OR		N/A									
TOTAL CLAIMS <small>(37 CFR 1.16(i))</small>		minus 20 =		*		X \$ =				OR		X \$ =									
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>		minus 3 =		*		X \$ =				OR		X \$ =									
<input type="checkbox"/> APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>		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).																			
<input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT <small>(37 CFR 1.16(j))</small>																					
* If the difference in column 1 is less than zero, enter "0" in column 2.												TOTAL				TOTAL					
<b>APPLICATION AS AMENDED – PART II</b>																					
(Column 1)			(Column 2)			(Column 3)			SMALL ENTITY		OR		OTHER THAN SMALL ENTITY								
AMENDMENT	<b>12/21/2009</b>		CLAIMS REMAINING AFTER AMENDMENT				HIGHEST NUMBER PREVIOUSLY PAID FOR		PRESENT EXTRA		RATE (\$)		ADDITIONAL FEE (\$)		OR		RATE (\$)		ADDITIONAL FEE (\$)		
	Total <small>(37 CFR 1.16(o))</small>		* 27		Minus		** 29		= 0		X \$ =				OR		X \$2=		0		
	Independent <small>(37 CFR 1.16(h))</small>		* 2		Minus		***3		= 0		X \$ =				OR		X \$220=		0		
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>																				
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>																				
												TOTAL ADD'L FEE		OR		TOTAL ADD'L FEE		0			
AMENDMENT			CLAIMS REMAINING AFTER AMENDMENT				HIGHEST NUMBER PREVIOUSLY PAID FOR		PRESENT EXTRA		RATE (\$)		ADDITIONAL FEE (\$)		OR		RATE (\$)		ADDITIONAL FEE (\$)		
	Total <small>(37 CFR 1.16(o))</small>		*		Minus		**		=		X \$ =				OR		X \$ =				
	Independent <small>(37 CFR 1.16(h))</small>		*		Minus		***		=		X \$ =				OR		X \$ =				
	<input type="checkbox"/> Application Size Fee <small>(37 CFR 1.16(s))</small>																				
	<input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>																				
												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.												Legal Instrument Examiner: /BARBARA A. FRIESON/									
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".																					
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The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.																					

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.**

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**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.





### DETAILED ACTION

This action is in response to the request for continued examination filed 21 December 2009. Claims 1-20 have been previously canceled. Claim 26, 27 and 35, 37 have been canceled. Claims 21, 28, 31, 32, 33, 37, 41, 46 and 51 have been amended. Claims 21-25, 28-34 and 37-51 are pending and have been considered below.

### *Response to Arguments*

Applicant's arguments with respect to claims 21-51 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 21 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The negative limitation, "the first preview not being displayed prior to the user selection," does not have a basis in the original disclosure. Paragraph 2173.05(i) Negative Limitations of the MPEP states:

**"Any negative limitation or exclusionary proviso must have basis in the original disclosure."**

Furthermore:

**"Any claim containing a negative limitation which does not have basis in the original disclosure should be rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement."**

***Claim Rejections - 35 USC § 103***

3. 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 negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 21-25, 28-34 and 37-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner (US 2004/0155908 A1) in view of Hirayama (US 2002/0035613 A1).

1-20. (Previously cancelled)

Claim 21: Wagner discloses a method for providing notifications of new events:

- a. on a wireless communication device having a small display (paragraph 0003),
- b. the wireless communication device having a graphical user interface 'GUI' displayed on the display (paragraph 0003),
- c. the GUI having a main screen comprising an application portion for displaying icons for respective applications (paragraph 0050, [The screen is divided into a main portion and secondary portion.]),
- d. for execution on the wireless communication device (paragraphs 0050, [services and applications], 0101, [initiating a service or application]), the method comprising:
  - e. providing on the main screen and in the application portion a plurality of application icons each representing an application on at the wireless device and each being invocable to launch its respective application (paragraphs 0050, [user selectable icons for services and application, 0101, [initiating a service or application]], and
  - f. in response to a new event in respect of one of the applications, visually modifying the respective application icon in the application portion of the main screen to notify of the new event (paragraph 0060, [when new news has arrived, the news paper rolls down, a mail icon displays a counter to indicate the number of unread messages]), and,
  - g. displaying a first preview of a content of the new event (paragraph 0059, figure 8A, [a news icon may display a current headline, for example "Tech Markets Boom"]); wherein

- h. the application icons are maintained on the main screen continuously (paragraph 0056, [while the positions of the application icons may change based on context, the icons remain continuously]) ; and wherein,
- i. the first preview persists on the main screen when a subsequent second preview is displayed, in response to a subsequent user selection, for a subsequent event (figure 8A, [as can be seen, the current headline persists while other events have been indicated in association with other service or application icons]).

Wagoner does not disclose in response to a user selection of the respective application, displaying a first preview of a content of the new event, the first preview not being displayed prior to the user selection, as disclosed in the claims. However, in the same field of invention, Hirayama discloses in response to a user selection of the respective application, displaying a first preview of a content of the new event, the first preview not being displayed prior to the user selection (paragraph 0114). Therefore, considering the teachings of Wagoner and Hirayama, it would have been obvious to one having ordinary skill in the art at the time of the invention to add in response to a user selection of the respective application, displaying a first preview of a content of the new event, the first preview not being displayed prior to the user selection, as disclosed in Hirayama, to the teachings of Wagoner. One would have been motivated to add in response to a user selection of the respective application, displaying a first preview of a content of the new event, the first preview not being displayed prior to the user selection, as disclosed

in Hirayama, to the teachings of Wagoner in order to provide quick access to desired information (Hirayama: paragraph 0009).

Claim 22: Wagner and Hirayama disclose the method of claim 21 and Wagner further discloses invoking the one application in the application portion in response to the visually modified icon (paragraphs 0060, [the news paper unrolls to indicate new news], 0065, [the user decides to read the news by selecting the news data service]).

Claim 23: Wagner and Hirayama disclose the method of claim 21 and Wagner further discloses monitoring the one application in the application portion to determine an occurrence of the new event (paragraph 0059, [the service management system presents specific information regarding the state of that particular service or application]).

Claim 24: Wagner and Hirayama disclose the method of claim 21 and Wagner further discloses:  
determining a visual modification for the icon of the one application icon in the application portion in response to the new event; and using said visual modification when visually modifying (paragraph 0059, 0060, [information labels, animated icons and counters]).

Claim 25: Wagner and Hirayama disclose the method of claim 24 and Wagner further discloses said step of determining a visual modification comprises maintaining a count of new events for the one application in the application portion (paragraph 0060, [a count of unread email messages]).

Claim 26: (Cancelled)

Claim 27: (Canceled)

Claim 28: Wagner and Hirayama disclose the method of claim 21 and Wagner further discloses said displaying the first preview comprises visually modifying the icon to include a dialog box over a portion of the main screen (figure 8A, [As can be seen in the figure, the previews, for example, the news preview is displayed in a box.]).

Claim 29: Wagner and Hirayama disclose the method of claim 21 and Wagner further discloses: in response to an activation of the one application in the application portion having its icon visually modified to notify of the new event, automatically navigating through the one application to the new event (paragraphs 0065-0067, figures 5B-5E, 8A, [the user navigates through the sports section to the desired information]).

Claim 30: Wagner and Hirayama disclose the method of claim 21 and Wagner further discloses said wireless device comprises at least one of a data communication device

and a voice communication device; wherein at least some of said plurality of applications manage communications capabilities associated with the wireless device and wherein said events of said at least some of said plurality of applications comprise communication events (paragraphs 0050, [cellular phones and PDAs], 0074, [telephone call, i.e. voice, calendaring, instant messaging, news, reports, movie services, mapping services]).

Claim 31: Wagner and Hirayama disclose the method of claim 21 but Wagner does not disclose, in response to a plurality of new events, visually modifying the respective application in the application portion to notify of the plurality of new events. However, Wagner discloses detecting a plurality of new events and visually modifying the respective application in the application portion to notify of a new event and indicating another event (figure 8A). That is, the movie icon shows an event, "Movie invite sent 7:46 am", and a field indicating "No response". It would have been obvious to display an indication that a response had been sent. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to add in response to a plurality of new events, visually modifying the respective application in the application portion to notify of the plurality of new events to Wagner and Hirayama. One would have been motivated to add in response to a plurality of new events, visually modifying the respective application in the application portion to notify of the plurality of new events to Wagner and Hirayama in order to remind the user that 1) a movie invite has been sent and, 2) to indicate to the user that he should respond if he has not yet



responded and to remind the user that he has responded, thereby improving the operation and functionality of Wagner.

Claim 32: Wagner and Hirayama disclose the method of claim 31 but Wagner does not disclose said visually modifying the respective application in the application portion comprises displaying a preview of a content of each of the plurality of new events, in response to the user selection of the respective application icon, as disclosed in the claims. However, in the same field of invention, Hirayama discloses visually modifying the respective application in the application portion comprises displaying a preview of a content of each of the plurality of new events, in response to the user selection of the respective application icon (paragraph 0114). Therefore, considering the teachings of Wagoner and Hirayama, it would have been obvious to one having ordinary skill in the art at the time of the invention to add visually modifying the respective application in the application portion comprises displaying a preview of a content of each of the plurality of new events, in response to the user selection of the respective application icon, as disclosed in Hirayama, to the teachings of Wagoner and Hirayama. One would have been motivated to add visually modifying the respective application in the application portion comprises displaying a preview of a content of each of the plurality of new events, in response to the user selection of the respective application icon, as disclosed in Hirayama, to the teachings of Wagoner and Hirayama in order to provide quick access to desired information (Hirayama: paragraph 0009).

Claims 33, 34 and 37-39: Claims 33, 34 and 37-39 represent the graphical user interface for carrying out the steps of the method of claims 21, 25, 28, 22 and 30, respectively, and are rejected under that same rational.

Claims 40 and 41: Claims 40 and 41 discloses the graphical user interface for carrying out the steps of the method of claims 31 and 32, respectively, and are rejected under that same rational.

Claim 42: Wagner and Hirayama disclose the method of claim 21 but does not disclose the GUI further comprises a status portion for displaying wireless communication device status information. However, Hirayama discloses a wireless communication device that displays device status information on the device display at the upper part of the display, i.e. a status portion (figures 4A-4B, 5A-5D, 6A-6C). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention, with the teaching of Wagner and Hirayama in front of him, to add the GUI further comprises a status portion for displaying wireless communication device status information to Wagner and Hirayama. One would have been motivated to add the GUI further comprises a status portion for displaying wireless communication device status information to Wagner and Hirayama because, as disclosed in Wagner, the context module keeps track of different aspects of the users current context, for example, one aspect is the user's network presence, such as whether the user has just lost a signal,

or has their phone ringer off, therefore, it would be useful in Wagner to show the status of the signal strength or the ringer status.

Claim 43: Wagner and Hirayama disclose the method of claim 21 and Wagner further discloses the application icons occupy a major portion of the main screen (paragraph 0050, [the icons are displayed in a main portion of the screen]).

Claim 44: Wagner discloses the method of claim 21 but Wagner does not disclose the first preview persists until the new event is opened. However, Wagner discloses receiving an event of "Movie invite sent 7:46 am" and also indicating that the user has not yet responded (figure 8A). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to add the first preview persists until the new event is opened to Wagner and Hirayama. One would have been motivated to add the first preview persists until the new event is opened to Wagner and Hirayama because the movie invite obviously requires a response and if the movie invite is removed, then the user could forget to issue a response, therefore, it would have been obvious to maintain the display of the movie invite event until the user responds.

Claim 45: Wagner and Hirayama disclose the method of claim 21 and Wagner further discloses the subsequent event is in respect of a second of the applications different from the one of the applications (paragraphs 0059, figure 8A, [the system detects a preference for the kind of news for a user and displays a headline preview in relation to

the news icon.], 0065-0067, [the user reads the news and the system detects that the user likes to read hockey reports and adds a hockey icon is added to the display. Hockey updates are displayed in relation to the hockey icon.]

Claim 46: Wagner and Hirayama disclose the method of claim 27 and Wagner further discloses there is a delay before displaying the first preview in response to the user action (paragraphs 0059, 0065-0067, [the system must detect a preference my monitoring usage patterns. Displaying a preview of a news item would not happen immediately and detecting the preference would occur over a period of time.]), but Wagner does not disclose selection of the respective application icon, as disclosed in the claims. However, in the same field of invention, Hirayama discloses selection of the respective application icon (paragraph 0114). Therefore, considering the teachings of Wagoner and Hirayama, it would have been obvious to one having ordinary skill in the art at the time of the invention to add selection of the respective application icon, as disclosed in Hirayama, to the teachings of Wagoner and Hirayama. One would have been motivated to add selection of the respective application icon, as disclosed in Hirayama, to the teachings of Wagoner and Hirayama in order to provide quick access to desired information (Hirayama: paragraph 0009).

Claim 47: Claim 47 discloses the GUI for carrying out the method of claim 42 and is reject under that same rational.

Claim 48: Claim 48 discloses the GUI for carrying out the method of claim 43 and is reject under that same rational.

Claim 49: Claim 49 discloses the GUI for carrying out the steps of the method of claim 44 and is reject under that same rational.

Claim 50: Claim 50 discloses the GUI for carrying out the method of claim 45 and is reject under that same rational.

Claim 51: Claim 51 discloses a method step similar to the method of claim 46 and is reject under that same rational.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). 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 date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN HEFFINGTON whose telephone number is (571)270-1696. The examiner can normally be reached on 8:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on 571-272-4847. 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.

/SARA ENGLAND/  
Primary Examiner, Art Unit 2179

JMH  
3/27/10