**Electronics / Computers**

Online Homework Set

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Advanced Patent Prosecution Workshop 2021:

*Claim Drafting & Amendment Writing*

HOMEWORK PROBLEM I SPECIFICATION AND CLAIM DRAFTING

1) You are an associate working on the attached application, including 3 drawing figures, a specification and one claim that was prepared by the client. Identify four problems with the application that you would like to correct before filing.

Diagram

Description automatically generated

COMPUTING DEVICE WITH IMPROVED USER INTERFACE FOR APPLICATIONS

BACKGROUND

1. Field

[0001] The disclosed embodiments relate to a computing device with an improved user interface for applications. The term `computing device` refers to any kind of device which can process and display information. The aspects of the disclosed embodiments have specific application to mobile telephones. The term `mobile telephone` refers to any kind of mobile device with communications capabilities and includes radio (mobile) telephones, smart phones, communicators, PDAs and wireless information devices. It includes devices able to communicate using not only mobile radio such as GSM or UMTS, but also any other kind of wireless communications system, such as Bluetooth.

1. Brief Description of Related Developments

[0002] One of the problems facing the designers of computing devices with small screens is how to allow the user to navigate quickly and efficiently to access data and activate a desired function. Computing devices with small screens tend to need data and functionality divided into many layers or views: for example, the small display size of mobile telephones has conventionally meant that several hierarchies of functions have to be offered to a user. The interface can be thought of as having many layers, with the user having to first locate the correct top level function and then, within that function, progressively drill down (sometimes through three or more layers) to complete the required task. Where a mobile telephone includes several different applications (e.g. a message application, a contacts/address book application, a calendar application and a telephone application), then the user normally has to first of all locate, then start/open the required application and then may need to navigate to the required function (e.g. create a new contact entry) or cause the required stored data (e.g. display names beginning with the letter `A`) to be displayed. This process can seem slow, complex and difficult to learn, particularly to novice users.

[0003] Hence, with conventional user interfaces, a user may need to scroll around and switch views many times to find the right data/functionality. An effective user interface would ideally enable the user to readily and rapidly access the right data/functionality. Designing such an interface is however a complex human factors problem, especially for computing devices such as mobile telephones.

[0004] In some mobile telephones, a menu of several available options is displayed: the menu commands may then be divided into functional groups, with the most useful functional group at the top of the menu; the most useful command within that group is then placed at the top of group. In other devices, only one option is shown on the screen at any one time, making it harder for a user to appreciate the available options and therefore navigate effectively.

[0005] Some mobile telephones also offer limited shortcuts to get straight to a particular function. This usually involves memorizing various keyboard input sequences, corresponding to different menu positions at different levels in the menu hierarchy. These shortcuts appeal only to a small number of expert users. Most mobile telephones also include idle screens (i.e. a display which is shown when the mobile telephone is switched on but not in use); these idle screens often carry alerting messages (e.g. "1 missed call").

[0006] On a more theoretical basis, a user interface typically has to demonstrate or make explicit the changing internal status of the mobile telephone as navigation proceeds. For example, to select or initiate a function (e.g. to open an address book function, enter a PIN security number or to alter the ring melody) a user has to understand (a) how to navigate to that function in order to select that function and (b) that the status of the telephone is such that the function can be selected or initiated. The technical problem of effectively enabling the user to understand this changing internal state has to date been inadequately addressed.

SUMMARY

[0007] The embodiments disclosed herein are directed to providing an improved form of user interface that addresses the problems stated above. According to a first aspect of the disclosed embodiments there is provided a computing device comprising a display screen, the computing device being able to display on the screen an application summary window, the summary window comprising a limited list of (i) common functions offered within an application and/or (ii) data stored in that application.

[0008] Hence, the presently disclosed embodiments envisage, in one implementation, a `snap-shot` view of an application in which the snap-shot view brings together, in one summary window, a limited list of common functions and commonly accessed stored data.

[0009] Preferably, where the summary window for a given application shows data or a function of interest, the user can directly select that data or function; this causes the application to open and the user to be presented with a screen in which the data or function of interest is prominent. This saves the user from navigating to the required application, opening it up, and then navigating within that application to enable the data of interest to be seen or a function of interest to be activated.

[0010] In another aspect, there is a computer program which when running on a computing device (such as a mobile telephone), enables the device to operate in accordance with the above aspects of the disclosed embodiments. The program may be an operating system.

BRIEF DESCRIPTION OF THE FIGURES

[0011] The disclosed embodiments will be described with reference to the accompanying Figures, in which:

[0012] FIGS. 1-3 are screen shots showing an implementation of the disclosed embodiments.

DETAILED DESCRIPTION

[0013] The presently disclosed embodiments offer, in one implementation, a snap- shot view which brings together, in one summary window, a limited list of common functions and commonly accessed stored data which itself can he reached directly from the main menu listing some or all applications. This yields many advantages in ease and speed of navigation, particularly on small screen devices. For example, a user can get to the summary window in just two steps--first, launch a main view which shows various applications; then, launch the appropriate summary window for the application of interest. This is far faster and easier than conventional navigation approaches. Once the summary window is launched, core data/functionality is displayed and can be accessed in more detail and can typically be reached simply by selecting that data/functionality. Hence, only three steps may be needed from start up to reaching the required data/functionality; navigating from between each step is clear and straightforward.

[0014] As an example, the main view may be an Application Launcher for several applications such as `Messages`, `Contacts`, `Calendar` and `Phone`. The Application Launcher view is then presented as a standard scrolling list of application names with appropriate application icons next to them. The list is vertical and only one application is presented per line. Standard highlight functions apply in that when the Application Launcher view is opened the highlight defaults to the first item in the list of applications. This is shown in FIG. 1, in which the screen display 1 includes a list of applications (`Messages`; `Contacts`; `Calendar`; and `Phone`), including a highlighted `Messages` at 2. Alternatively, the highlight may default to the middle item in the list of applications. At this point, the user may take conventional navigation steps, such as scrolling, to move the highlight and using the available select function to navigate to the required highlighted application.

[0015] The innovative summary window functionality can be accessed as follows: should the highlight rest on the name of an application in the App Launcher for a certain amount of time (say a 1-2 second timeout), the summary window (the "App Snapshot") drops down from the highlight bar. The App Snapshot for any given application is a window which includes commonly requested data associated with that application and links to common functionality in that application. The App Snapshot is shown at 3 in FIG. 2, it includes the number of new messages (`0`) and links to the two most common functions (as defined by the system designer, or selected by the user, or learned by the device) in the Messages application--`Create Messages` and `Enter chat room`. In FIG. 3, a slightly longer App Snapshot is shown, indicating at 4 that there are `2 new SMS` messages and `1 Chat Ongoing`. Other selection processes could also be used (e.g. voice activation, softkey selection etc.) to access the App Snapshot. For example, the App Snapshot may be `called` or `fired` by using a right scroll function (if the mobile telephone has 4-way scrolling capacity); a press and hold of the select function when an application name is highlighted; or using a right cursor key on a highlighted application name.

[0016] A highlight is available in the App Snapshot dropdown which may be scrolled in order to select a required item, When an item in the App Snapshot is selected (e.g. by being highlighted and then selected using a conventional selection technique such as pressing a right cursor), the device displays the relevant data in the application details view, or displays the relevant screen offering the relevant functionality. The required application may be automatically opened when the item in the App Snapshot is selected. The App Snapshot can therefore display data from an application and functions of that application without actually opening the application up: only once a user has selected an item in the App Snapshot associated with a given application does that application have to be opened. For example, when `Create Messages` in an App Snapshot is selected, then the messaging application is opened up; that application does not however have to be opened up prior to that stage.

Claims

1. A computing device comprising: a display screen,

the computing device being configured to:

display on the screen a menu listing one or more applications, and an application summary that can be reached directly from the menu,

wherein:

the application summary displays a limited list of data offered within the one or more applications,

each of the data in the list are selectable to launch the respective application and enable the selected data to be seen within the respective application, and

the application summary is displayed while the one or more applications are in an un-launched state.

HOMEWORK PROBLEM II – AMENDMENT DRAFTING

Having great pride of authorship, the client did not agree to your proposed edits and the application was filed without further amendment. The application was rejected as being anticipated by the attached Blanchard patent (U.S. 6,415,164). You successfully argued that Blanchard did not teach all of the limitations of claim 1. In the amendment, you also added claims 2-4 below. The Examiner then issued the following Final Office Action.

Outline the arguments and amendments you would make in response to the Final Office Action.

1. (New) A computing device comprising: a display screen;

a memory; and

a processor coupled to the memory and responsive to program instructions stored in the memory that configure the processor to:

display a menu listing multiple applications;

responsive to receiving a selection of one application of the multiple applications from the menu displaying an application summary including a limited list of data offered within the selected application.

1. (New) The computing device of claim 2, wherein the program instructions further configure the processor to:

launch the selected application responsive to receiving a selection from the list of data in the application summary.

1. (New) The computing device of claim 2, wherein the program instructions further configure the processor to:

Display the application summary while the selected application is in an un-launched

state.

The present application is being examined under the AIA first to invent provisions.

**DETAILED ACTION**

This communication is responsive to Amendment, filed 06/12/2018.

Claims 1-4 are pending in this application. In the Amendment, claims 2, 3, and 4 were added in the response dated 06/12/2018. This action is made Final.

***Claim Rejections - 35 USC § 101***

35 U.S.C. §101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture or composition of matter or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 1-4 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to a judicial exception (i.e. an abstract idea) without significantly more.**

Independent claims 1 and 2 are directed to a patent-ineligible abstract idea. Claims 1 and 2 are directed to a system for organizing data similar to *Dietgoal Innovations* (Alice Step 2A). The invention concerns a user interface to application programs on the mobile device. The information displayed is information commonly available on mobile devices. The arrangement of this information is an abstract idea. Furthermore, Although the system recites a display screen and a computing device and claim 2 recites a display screen, a memory and a processor, these are generic computing hardware. These claimed elements are not sufficient to amount to significantly more than the abstract idea (Alice Step 2B). Dependent claims 3 and 4 describe additional software functions that are also directed to the abstract idea. Dependent claims 3 and 4 do not recite any non-generic computing devices. Thus, claims 1-4 are rejected under 35 U.S.C. § 101.

***Claim Rejections – 35 U.S.C. § 112(a)***

Claims 2-4 are rejected under 35 U.S.C. § 112(a) as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, at the time the application was filed, had possession of the claimed invention.

Claim 2 recites a processor and a memory but these devices are not supported in the specification.

***Claim Rejections - 35 USC § 103***

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

A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-4 are rejected under 35 U.S.C. § 103 as being unpatentable over Blanchard et al. (U.S. Patent No. 6,415,164).**

With respect to claim 1, Blanchard discloses, “a computing device comprising a display screen, the computing device being configured to: display on the screen a menu listing one or more applications, and an application summary that can be reached directly from the menu,” (See FIG. 3 and column 3, lines 3-9). Furthermore, Blanchard discloses, displaying “an application summary that can be reached directly from the menu, wherein: the application summary displays a limited list of data offered within the one or more applications, … the application summary is displayed while the one or more applications are in an un-launched state.” (See FIG. 3 and column 6, lines 7-28). Blanchard does not explicitly disclose “each of

the data in the list are selectable to launch the respective application and enable the selected data to be seen within the respective application.” It is well-known, however, to launch an application from a menu by selecting the application.

Claims 2, 3 and 4 include the same limitations as claim 1 and are unpatentable under 35

U.S.C. § 103 over Blanchard for the same reasons as claim 1.

***Response to Arguments***

Applicant’s arguments with respect to the amendment have been considered but are moot because the arguments do not apply to any of the references being used in the current rejection.

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

***Inquiries***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles McCarthy whose telephone number is (571)555-1234. The examiner can normally be reached on Mon- Fri 7:00AM - 3:00PM.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Ed Bergen can be reached on (571) 555-5678. 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.](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.

C.M.

/Ed Bergen/ Supervisory Primary Examiner

HOMEWORK PROBLEM III – INTERVIEW PREPARATION

The client now wants you to interview the examiner before filing the response to the Final Action. Prepare an interview summary outlining the arguments you will make to the examiner and your recommendations on what kind of interview you would like to have and who should attend.