

# Mobile Alert Application (InstantNote+) for Smart Phone

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**Abstract—** Instant Note+ is a mobile alert application where user can set voice reminders, text reminders, short alerts, schedule calls, SMS and emails in seconds. The Time Page user interface enables you to set functions such as voice reminders and bell in simple steps. Time Page contains “time cells” where times are arranged with 15 minutes granularity or 5 minutes granularity for instant selection of desired time and quick setting of required function. This application is developed for windows mobile and testing is done of this project is for different smart phones like blackberry (OS 4.5 and 4.7), symbian (1.6) and iPhone smart phone. Finally results are observed by taking switch on and off condition of mobile, during event set some other activity is going on. This application works on particular trial value (5).

**Keywords-** InstantNote+, Smart Phone, Windows Mobile, Voice Reminders, Bell, SMS, Email.

## I. INTRODUCTION

Mobile OS provides the interface for communication between the application layer, Middle ware layers and hardware devices. It facilitates the running of a program, hiding the specification of hardware and provides many OS function (example device driver). Every Smart Phone has different mobile OS like Symbian, BlackBerry, iPhone, Android, Windows mobile OS. BlackBerry devices used Intel-80386-based processors. The latest BlackBerry 9000 series is equipped with Intel XScale 624 MHz CPU, which makes the fastest BlackBerry to date. Earlier BlackBerry 8000 series Smartphone, such as the 8700 and the Pearl, are based on the 312 MHz ARM XScale ARMv5TE PXA900. BlackBerry PIN is an eight character hexadecimal identification number assigned to each BlackBerry device. PINs cannot be changed and are locked to each handset device. BlackBerry can message each other using the PIN directly or by using the Blackberry Messenger application. Windows mobile 5 is equipped Intel XScale processor 416MHz. It supports multi processor architecture. While Windows mobile 6 is equipped with ARM processor. In the Latest windows mobile have 500-600 MHz processors and 64-128 MB RAM.

BlackBerry Smart phones runs on the BlackBerry OS (4.5, 4.7 and so on) while Windows Mobile Smart Phones runs on the Window CE operating system. All Smart Phone applications designed through a particular platform like for BlackBerry Smart Phone it uses JAVA ECLIPSE for frontend

and for backend (database storage) it uses SQL Lite. For Windows Mobile Visual Studio 2005 and Visual Studio 2008 is used for Frontend and My SQL is used for Backend.

Instant Note+ is useful Application where user can set different event like voice remainder and Bell in second. Setting reminders was never so quick before! Just set them instantly and optimize user time. This event is set by time page screen. Time Page contains “time cells” where times are arranged with 15 minutes granularity or 5 minutes granularity for instant selection of desired time and quick setting of required function. We design InstantNote+ application for Windows Mobile. We also test this application for Different Smart Phones like Windows Mobile and BlackBerry.

This paper is organized as follows: Next section describes Features of InstantNote+. Section III describes how to use this application. Section IV describes Testing of Mobile based application. Section V describes Conclusion of this paper.

## II. FEATURES OF INSTANTNOTE+

The proposed InstantNote+ application having the following functionality.

### A. RECORD:

It specific voice message for each reminder. When the time set is reached, the voice you have recorded plays. We can record and save your voice messages to create your favorite list - My List. You can also use these saved messages as your standard voice reminders.

### B. Bell:

Set a short Bell alerts in a flash.

## III. HOW TO USE INSTANTNOTE+

Setting any function involves selecting the time and setting the related function, which are described below. Associated features are also explained.

Selecting time for the function  
Using function buttons

- VOICE
- BELL
- Combination of Functions

Any one of the four **Time Pages** over which the 24 hours of the day are arranged in 15 minutes granularity can be the InstantNote+ home screen.

First page consists of time cells - 12.00, 12.15, 12.30.....05.15, 05.30, 05.45 AM with the scroll bar position at the top.

Second page consists of time cells - 06.00, 06.15, 06.30.....11.15, 11.30, 11.45 AM with the scroll bar position just above the center.

Third page consists of time cells - 12.00, 12.15, 12.30.....05.15, 05.30, 05.45 PM with the scroll bar position immediately below the centre.

Fourth page consists of time cells - 06.00, 06.15, 06.30.....11.15, 11.30, 11.45 PM with the scroll bar position at the bottom.

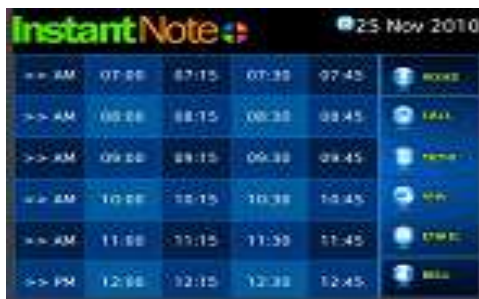


Figure 1: Main Application Page (15 min Interval Screen).



Figure 2: Main Application Page (5 min Interval Screen).

The scroll bar position loads any of these four pages with time granularity of 15 minutes on the screen. Tapping on AM>> or PM>> Tap on the time cell(s) corresponding to the time for which you want to set the function. User can select any number of cells across different pages for the same date to assign the same function for all the selected time cells. Proceed to tap on the action button for selecting the function of your choice. To set another function to the same or the other times, repeat the steps 1, 2 and 3 in the same order.

#### A. Time Cell Colours Indication:

- A **blue** colored time cell indicates that no function is set for that time.
- When you tap on a time cell, it turns **orange**, indicating the cell has been selected. If you tap again, it turns back into **blue**, indicating that the cell has been deselected.
- When a function has been set for a time, the corresponding cell turns **green**.
- When a **green** time cell is again selected for setting another function, it turns **purple**. To deselect it, tap again.
- When function is again set for a purple colored cell, it again turns **green**.

#### B. Function Buttons is for Instant Note+

**VOICE:** It is used for either setting Voice Reminder for a selected time.



Figure 3: InstantNote+ Application select voice functions for selected time.

**Bell:**-It is used for setting an alert instantly.

- Select reminder time(s).
- Tap the BELL button.

The Bell 'rings' at the set time.

User can set any number of reminders and schedules. Multiple functions can be set for the same time. User can set more than one function for the same time cell. It is possible to set voice reminder, Bell for the same time cells by the steps as mentioned in Selecting Time .For the same time cell, if record is set for the second time, the first one will be overwritten by the second one.

- When the set time is reached for VOICE function, a notification window pops up with the button Play on it along with the audio. The user can stop the audio in between by tapping on the same button. If the message has to be played again, tap on Play.
- When the set time is reached for BELL Function, a notification window pops up with the button Bell on it along with the audio.
- When the set time is reached and the functions set are any combination of VOICE and Bell, then the notification window that pops up has all the corresponding messages in it.

Tapping on OK on the notification window will take off the notification.

This Mobile Application InstantNote+ works on 5 trial value. As the notification window comes trial value decrease by one and when the trial value become zero then application get expired and during notification time or event set time message comes” Application get Expired” and whenever user try to open this application InstantNote+ then message comes ”Application get Expired”.

#### IV. TESTING OF INSTANTNOTE+APPLICATION

There are various types of Software testing like Black Box Testing, White Box Testing, Unit Testing, Sanity Testing, Regression Testing, Functional Testing, End to End Testing, Security Testing, Integration testing, Alpha Testing and Beta Testing available. In this paper we have done Sanity Testing and Black Box Testing. Sanity Testing is used if a new software version is performing well enough to accept it for a major testing effort. If application is crashing for initial use then system is not stable enough for further testing and build or application is assigned to fix. In Black Box Testing Internal system design is not consider in this type of testing .Testing is done based on functionality and requirement. The various phases involved in testing, with regard to the software development life cycle are:

- Requirements stage*
- Test Plan*
- Test Design*
- Design Reviews*
- Code Reviews*
- Test Cases preparation*
- Test Execution*
- Test Reports*
- Bugs Reporting*
- Reworking on patches*
- Release to production*

In above stages, first stage is Requirement stage, in which software requirement specification document is prepared. Second stage is test plan, in test plan we include total number of feature which are to be tested like testing methodologies, testing tools and test cases. Testing methodologies are of two types, first is Manual testing and second is Automated testing. Test cases is a set of condition of variables under which a tester will determine if a requirement or use case upon an application is partially or fully satisfied. In test cases the known input is precondition and expected output is post condition. Test cases can be written by two ways- JUnit (Automated) and Test cases by template (Manual). Testing tools like Quick test professional or rational software tools are available. Third stage is test design; it is done based on the requirement of project. Fourth stage is Design Reviews in which GUI (Graphical User Interface) further verify for different screen. Fifth Stage is Code Reviews in which we try to minimize the code length. Sixth stage is test case preparation; it is prepared based on following scenarios like positive, negative, boundary condition, real world scenarios. In all next stages such as Test execution, Test Reporting, Bugs reporting, Reworking on Patches; in all this testing stages ones the unit testing is completed and code is release to QA. The Functional testing is done, if any top level failure occurs then BUGS should be reported to developer immediately to get the required work around and in test reports test document or test template document is prepared and the Bugs have to be reported to the developer after the testing is completed. Final stage is Release to production. In this stage once the release is given to the QA with the modified changes regression testing is executed, once the QA confirm the software, and then this software is release to production. Before releasing to production another round of top level testing is done.

Test Cases of InstantNote+ are based on the manually. These test cases are prepared for Different condition like in Normal condition, Switch off, During Incoming call, outgoing call, During Next notification time first notification windows is already on screen.

#### V. CONCLUSION

In this paper an efficient InstantNote+ applications user can set different event like voice and Bell and during notification time selected event comes during notification. It is an alarm Application for smart phone. But in this application as our choice voice event can be save. This InstantNote+ application is very useful for Smart Phones.

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