A New Improvement of Time Management Software Method Based on Getting Things Done

Yu-qing TIAN, Ming-hua WAN, Wen-jin LU, Chu GAO, Dong-sheng SHU and Guo-wei YANG
School of Technology, Nanjing Audit University, Nanjing 211815, China
*Corresponding author

Keywords: Android platform, Time management, Software, Getting things done (GTD).

Abstract. In order to solve people's dependence on mobile phones, a variety of time management software based on Android platform have emerged in the market. By comparing and analyzing these time management software, we find that there are the following main problems: 1) Operators need to increase user traffic; 2) User experience and use effect become unsatisfactory; 3) Time management cannot be carried out efficiently. Therefore, in view of the above problems, a new time management software based on Getting Things Done (GTD) is designed and implemented. We hope that this new software can better control the relationship between the main functions and auxiliary functions, so that users can make efficient use of time and achieve the effect of getting rid of dependence on mobile phones.

Introduction

With the progress of the times and communication technology, smart phones have been rapidly popularized in all sectors of our society, especially college students, because of their low cost, multi-function, convenient and fast features[1].

Time management software emerges at the historic moment in these four stages[2]. It aims to improve users’ awareness of time management and enhance their time utilization efficiency.

It was pointed out that GTD (Getting Things Done)[3] is an advanced theory and method of time management. Using the idea of GTD, time management can be carried out efficiently. However, the current GTD time management tools have many shortcomings, which cannot meet the needs of users well, and even bring users a very bad experience[4]. Therefore, in view of the above problems, a new time management software based on Getting Things Done (GTD) is designed and implemented.

Analysis of Software Running Process

Nowadays, many mobile devices such as Huawei and Xiaomi have their own built-in systems, and the operation of programs may vary under different models. Because the impact of different built-in systems is not universal, the differences caused by different systems are not within the scope of this paper.

Basic Functions and Interface Design

In our previous survey, we found that almost all time management software in the market was inspired by the tomato work method, a micro-time management method founded by Francisco Sililo in 1992[6]. The specific methods are as follows:

Choose a task to be completed and set the tomato time (working time) to 25 minutes. Concentrate on your work and don't do anything unrelated to the task until the tomato clock rings. Draw an X-minute break (5 minutes) on the paper at the end of the work. The break time can be increased appropriately every four tomato periods.
Monitoring and Constraint System Settings

The previous section only restored the customization and operation of the Pomodoro, and did not implement the function of restricting users to use the mobile phone. This section focuses on how software limits mobile use to increase user productivity.

The function of this paragraph is to prevent the user from pressing the back button or the process is destroyed when the phone is sleeping. When the user presses the back button, the process is moved to the background.

The above program is used to judge the state that the application is running in the foreground or in the background, and is printed out by log.

Whitelist Settings

Often, users have already put their phones aside when they concentrate on their work plans, but in some cases, users use their mobile phones to query data, such as electronic dictionaries, or to receive and view files in the office. If these applications are also restricted by time management software, it is bound to affect the user experience, so put these applications on the whitelist in case they are restricted when the timing activity is open.
Defects and Improvements

Auxiliary Function Is Weaker

In time management software, time and events are essential aspects, but some time management software simply positions itself as time, without the concept of extensibility, causing users to use the software due to the audience downloading it. A single function will also cause aesthetic fatigue. It is recommended to achieve organic integration of time management and schedule management.

Figure 4. The forest software forms its own unique incentive system in the form of a tree. Although it achieves the effect of freshness and page simplicity, it does not have a clear job task identifier.

The Constraint Mechanism Is Too Extreme

This kind of over-constraint is mainly divided into two situations, which are mainly divided into task manager disabled class and extreme constraint class. The task manager represented by "Toma todo" disables class time management software in order to prevent users from forcibly cleaning up from the task manager.

Timing Device Is Easy to Interrupt

This shortcoming is very obvious in Forest, the timing device is not sensitive enough and easy to stop. Forest is an inspiring software. By completing the task, the small tree survives and can have its own forest. However, the software's timing device is not perfect. After investigation, many users report that for the work plan that has already started, after a period of time. After that, the small tree withered, the work timing was interrupted or reset for no reason, and this was caused by the software's own vulnerability.
New Software Design Ideas and Feasibility Analysis

In the new software design to avoid the above shortcomings, one seeks a flexible incentive system and exerts strong control on a moderate basis. It is necessary to ensure that the system program is operating normally, and that the timing task cannot be uninterrupted.

The time interval here can also be artificially modified.

The user manually mobilizes the reminder time according to his or her own work. Help the audience understand the use of today's time and prepare for tomorrow's time. The daily report of the daily newspaper can be shared in the social circle according to the user's preferences, and enhance the sense of accomplishment.

This improvement is aimed at important but easily forgotten things. Through the use of software on the market for common time management, we found that the work list can be entered and can be reminded, but it is not permanent and will be overwhelmed by what happens afterwards.
Figure 9. The most important thing: flexible setup tips.

Summary
The article takes the modern people's time management confusion as the problem orientation, which leads to the use status of time management software, and analyzes and improves the time management software with the timing device as the main research direction. However, finding the optimal solution in the trade-off between timing tasks and user experience and system security is still a topic worth exploring in the future.

Reference