International Journal of Global Engineering (IJGE) E-ISSN: 2456-3099

VOL 2 ISSUE 3 (2018) PAGES 1 - 8

Received: 20/02/2018. Published: 22/03/2018

WAP:REMOTE ADMINISTRATOR TOOL FOR CONTROLLING OPERATING SYSTEM

[1]Ms. S.Monika [2]Ms. B.Vinitha
[3]Prof. M. Saravanan,
[1, 2] Second Year M. C.A. Student, [3]Associate Professor
Department of Computer Applications
Ganadipathy Tulsi's Jain Engineering College, Vellore, INDIA.

ABSTRACT

Devious WAP is a Remote Administrator Tool for any Operating System that can support the java Virtual machine. It has been designed for anyone who wishes to have complete control of his or her Windows Operating system anywhere by using a WAP enable Mobile phone. Devious WAP is developed using java and WML for the client mobile phone front-end pages. Devious WAP has a java swing GUI to allow for easy control .This command for the Devious WAP can also added and further more the status message is also displayed in the Mobile .This Devious WAP is now designed for Windows XP and with java 1.4 or greater .This Devious WAP has features like password login and as well as log files. Java is used especially for giving the platform independence as well as to go with all the operating system.

1. INTRODUCTION

This paper developed makes use of the WAP service as well as the platform independent language Java and WML for the WAP interaction. Java is chosen in order to have the cross platform independence as well as to have an interaction with the WAP enabled device like the mobile. The paper aims to take a first step towards giving the mobile to have a control over the personal computer since the advancement in the mobile technology is very fast.

Since the mobiles offers all the facilities like the surfing of the internet to email, in near future this may be a part of the mobile advancement.

1.1 Aim and objective

The main aim of this article is to have a remote control for an Operating System through which we can control the Personal Computer .for this WAP enabled mobile phone is chosen to interact with an Operating System and in this case the Operating System is the Window XP an open source system. Mobile commands can be issued to the computer and then response for those issued commands can be obtained with the help of WAP and WML. Here the interaction is through the server in the Operating System which is started first. The user is required to log into the server in order to interact with Operating system. The server can be configured to accept the incoming connection from the mobile phone through a specific port of our choice. The user has to give the correct password to login to the server. Every user logging information is maintained in

International Journal of Global Engineering (IJGE) E-ISSN: 2456-3099
VOL 2 ISSUE 3 (2018) PAGES 1 - 8
Received: 20/02/2018. Published: 22/03/2018

the log file. For the easy use of Devious WAP the help is also available along with the user manual.

1.2 WAP

The wireless industry came up with the idea of WAP. The point of this standard was to show internet contents on wireless clients, like mobile phones.WAP is an application communication protocol.WAP is used to access services and information.WAP is inherited from internet standards.WAP is for handled devices such as mobile phones.WAP is a protocol designed for micro browsers.WAP enables the creating of web applications for mobile devices.WAP uses the mark-up language WML (not HTML).WML is defined as an XML 1.0 application Mobile commands can be issued to the computer and the response for those issued commands can be obtained with the help of WAP and WML. Here the interaction is through the server in the Operating system, which is started first. The user is required to log into the server in order to interact with the Operating system. The server can be configured to accept the incoming connection from the mobile phone through a specific port of our choice. The user has to give the correct password to log in to the server. Every user logging information is maintained in the log file.

2. DETAILED DESIGN OF THE SYSTEM

2.1 Existing system

Although there is no exists system for this Devious WAP in future it may not be the case. More and more of WAP enabled services for the mobile as well as for the computers may be in place. In short the drawbacks cannot be said as of now since there is no existing system in place. With our system we have succeeded with a minimal set of commands and it has proved to be successful.

2.2 Proposed system

The proposed system is to have a server and the client part will be loaded into the WAP enabled mobile. For the execution the users has to log into the server and once the password is correct the user gains access to the computer. This project uses java for coding the server and the client. For the user end a WAP enabled mobile is required. The server, which has to be configured to accept the incoming connection and it, can accept only on connection at the specified port and not multiple connections like a network.

2.2 Requirement Analysis

Requirements analysis involves in identifying the minimum requirements that would be necessary in order to develop a complete functional system. This would be identifying minimum hardware and software requirements and a brief economically.

2.3. Study of the System Design

2.3.1 Feasibility study

The main objective of feasibility study is to test the technical, social and economical feasibility of developing the system. The feasibility of the proposed system is studied under three aspects and the outcome described below. The proposed system must be evaluated from a technical viewpoint first and if technically feasible their impact on the organization and the users must be accessed

2.3.2 Economic Feasibility

The Devious WAP system can work under Windows XP. It does not require the installation of any special hardware or software except the installation of the Windows Operating System. Hence this project is economically feasible expect for the W AP enabled mobile

2.3.3 Technical Feasibility

The assessment of technical feasibility must be based on an outline design of system requirements in terms of inputs, outputs, files and staff. Then, it can be quantified in terms of volumes of data transferred, frequency of updating, cycles of activity, etc. The proposed system has a very good response time with good accuracy and efficiency. Hence, the proposed system is technically feasible.

2.3.4 Schedule Feasibility

The article was successfully analyzed within the scheduled time and is hence schedule feasible. All these factors are carefully analyzed and in all aspects the benefits of the proposed system overweigh all the benefits received in the earlier system without compromising on user friendliness and performance, which are the major factors to be considered in any system being developed. So the proposed system is feasible in all aspects.

2.4 Input Design

2.4.1 Data Design

Data Design is the first of the three design activities that are conducted during software engineering. The impact of data structure on program structure and procedural complexity causes data design to have a profound influence on software quality. The concepts of information hiding and data abstraction provide the foundation for the approach to data design.

2.4.2 Architectural Design

The primary objective of the architectural design is to develop a modular program structure and represent the control relationship between modules. In addition, architectural design melds program structure and data structure, defining interfaces that enable data to flow throughout the program.

2.4.3 Fundamental Design

Data software design, abstraction allows us to organize data throughout the processes by postponing structural considerations and detailed algorithmic considerations until the functional characteristics, data streams and data stores have been established. Data abstraction involved specifying legal operational on objects representation and manipulation details are suppressed.

2.4.4 Information Hiding

Information hiding is a fundamental design concept for software. When a software system is designed using the information hiding approach, each module in the system hides the internal details of the processing activities and modules communicate only through well-defined interfaces. Information hiding can be used as the principal design technique for architectural design of a system.

2.4.5 Modularity

Modular system incorporates collections of abstractions in which each functional abstraction, each data abstraction and each control abstraction handles a local aspect of the problem being solved. Modularity enhances design clarity, which is turning cases implementation, debugging, testing, documentation and maintenance of the software products.

2.5 Output Design

Output refers to the result and information that are generated by the system. Output is the main reason for developing the system and based on this, the usefulness and applicability of the system are evaluated. Output from computer system is required primarily to communicate the results of processing to users. Efficiently designed outputs enhance the understandability of the information. There are two types of output according to the requirements of the system:

a) Internal outputs, whose destination is within the organization and which require careful design because they are the user's main interface with the computer.

b) Interactive outputs, in which the user communication with the computer is essential.

3. IMPLIMENTATION OF THE SYSTEM

This chapter that describes how the system has been implemented and various steps taken for the development of the system. This section describes about the various following stages throughout which the system processes.

3.1 Server Tab

The server accepts the incoming connection and only when the server is started alone the RemoteWap becomes active. The server is configured to accept the incoming connection at the specified port, which is the TCP/IP port. The server has the following Options.

3.1.a START

By the use of this option when we click on this button starts the server and the server is now ready to accept the incoming connection and it gives the confirmation that is server is started and online.

3.1.b STOP

By the use of this option when we click on this button stops the server and all the activities come to end.

3.1.c RESTART

Based in this option we can restart the server, which is stopped and gets the server back to Online.

3.2 Logs Tab

This tab will select and view the log files or delete the log files, which keep track of the user information who are logging in along with the time and date.

3.3 Configure Tab

This is were we configure the port for the server where the connection will be made and the server will listen any incoming connection on this port and the location where the log file details can be stored. The password for the connection is also given in this tab. **3.4 Help Tab**

This has all the information required to work with the RemoteWap along with the user manuals for the invoice users.

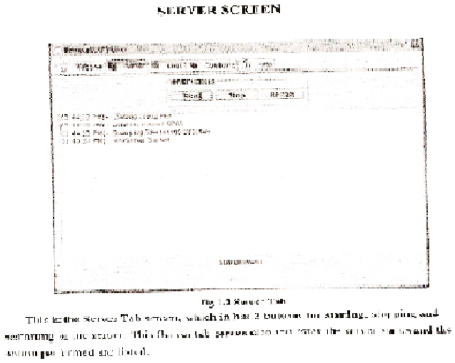
3.5 Snap Shots

A) WELCOME SCREEN

Fig 1.1 Welcome Screen

This is the welcome screen of the RemoteWap.

Fig 3.1 Introduction screen

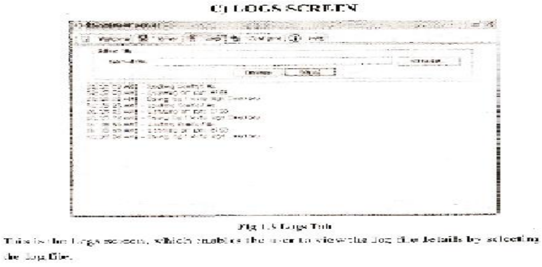


SERVER SCREEN

Fig 1.2 Server Tab

This is the Server Tab screen, which it has 3 buttons for starting, stopping and restarting of the server. This Server tab also indicates the server status and the actions performed are listed.

Fig 3.2 Server Screen



C) LOGS SCREEN

Fig 1.3 Logs Tab

This is the Logs screen, which enables the user to view the log file details by selecting the log file.

Fig 3.3 Configure Screen

Received: 20/02/2018. Published: 22/03/2018

4. SYSTEM TESTING

The software testing techniques provide systematic guidance for designing tests that will give the Exercise the internal logic of the software and the input and output domains of the program to uncover errors in the program function, behavior performance

4.1 Steps to be followed

Testing begin "in the small" and progresses "to the large". That is early testing focuses on a single component and applies white and black box tests to uncover errors in program logic functions. After individual components are tested they are integrated. Testing continues as the software is constructed. Finally a series of high order test are executed then the full program is operational.

- Testing begins at the component level and works out word towards the integration of the entire system.
- Different testing techniques are appropriate at different points of time.
- Testing is conducted by the developer of software or by an independent test group.
- Testing and debugging are different activities but debugging is accommodated in testing strategy.

4.2 Types of testing used

4.2.1 Unit testing:

This testing focused on verification effort on the smallest unit of software design the software component module. Using the components level design description as a guide, important control paths are tested to uncovered error within the boundary of the module. The relative complexity of tests and uncovered errors is limited by constrained scope established for the unit testing. Some tests were also conducted in parallel for multiple components. Unit testing is done in two phases namely,(i) Reality testing (ii)Crash testing

4.2.2 Integration Testing

This testing is a systematic technique for constructing a program structure while at the same time conducting tests to uncover the errors associated with interfacing. The objective is to take unit tested components and build a program structure that has been dictated by design. The program is constructed is small increments, where errors are easier to isolate and correct.This technique is known as incremental integration. A number of incremental integration strategies are in use and the approach hat is used in this system

4.2.3 Top -Down Integration

This testing is an incremental approach to construction of program structure. Modules are integrated by moving downwards through the control hierarchy, beginning with the main control module (main program). Modules subordinate (and ultimately subordinate) to the main control module are incorporated into the structure in either a depth-first or breadth-first manner.

Received: 20/02/2018. Published: 22/03/2018

1. The main control module is used as a test driver and stubs are substituted for all components directly subordinates to the main control module.

2. Depending on the integration approach, selected subordinate studs are replaced one at a time with actual components.

3. Tests are conducted as each component is integrated.

4. On Completion of each set of tests, another stub is replaced with the real component.

4.2.4 Recovery Testing

Main computer-based systems have to recover from faults and resume processing with a pre-specified time. Processing faults must not cause overall system function to cease. In other cases, System functions to cases. Recovery Testing is a system test that forces the software to fail in a variety of ways and verifies that recovery is properly performed. The recovery testing implemented in the system is automatic and is tested for re-initialization; check pointing mechanisms, data recovery and restart are evaluated for correctness. If recovery requires human intervention, the main-time-to-repair (MTTR) is evaluated to determine whether it is within acceptable limits.

4.2.5 Security Testing

The system manages sensitive information or causes actions that can improperly harm (or benefit) individuals are a target for improper or illegal penetration. Penetration spans a broad range of activities. Security testing attempts to verify that protection mechanisms built into a system will protect it from improper penetration. During the testing stages, many attempts to acquire password through any means hoping to find the key to entity into the secured area has been done extensively.

4.2.6 Performance Testing

This testing is designed to test the run-time performance of the software within the context of an integrated system. Performance testing was performed throughout all tests in the testing process. Even at the level, the performance of an individual module is checked. Performance testing usually require both hardware and software instrumentation. It is often necessary to measure the resources utilization in an exacting fashion, which was performed in this system. External instrumentation is used to monitor execution intervals

4.2.7 Black Box testing

It involves testing the behavioral aspects of the system. The floe of logic within the system is immaterial rather the system should provide the desired output on giving a valid/invalid user input or action.

4.2.8 White Box testing

It deals with the logical flow of the program. It involves a te by-step testing of the logical aspects of the system by giving valid/invalid user inputs. 0 integrating these individual bits of code together we finally have the whole system tes Hence in the first case at every stage the white box testing is carried out first and at a particular level when a module is completed the black box testing tests it.

Received: 20/02/2018. Published: 22/03/2018

1. Running the program to identify any syntax error that might have occurred while feeding the program into the system.

2. User authentication test to verify the validity of the data that is entered by the user

3. Numeric and nom numerical data test to identify that only the specified data has been entered in the particular fields

4. Data validation testing to check whether the user entered only valid and allowed dates. Fields testing to verify all the mandatory fields were filled. This was done to ensure that the user does not leave out any required fields

6. The modules were combined together and integrated testing was implemented. The validity of the whole project was verified after the integration of the modules.

5. CONCLUSION

The developed system is in tune with the requirement analysis and satisfies the specification that we mentioned at the time of system study. The working efficiency substantially increased. This paper has the ability to give the user the control of the operating system, and this is the first step towards giving a edge in the mobile field. This paper which has a set of command which can be issued to the operating system Linux to perform that particular command and the aim of this paper is to ensure that the mobile now becomes a remote control tool to control the operating system.

6. FUTURE ENHANCEMENT

The Remote WAP we have developed is unique of this kind and since there is no existing system to compare with we still feel that future developments can be made in the following areas.

1. The system can be still updated so that a user can issue a command of his choice.
2. Further Remote WAP improved in such a manner user can view more command with the description.
3. As a more complicated system, we can think of implementing the client GUI in the mobile using which interaction with Linux can be made easy.

References

www.wml.org

www.sun.java.com

www.packetstrom.com

www.zone-h.com

1.Randall Raus, Hang Lau. WAP2.Development.Tata McGraw hill-2001.

2.Elizabeth castro. WML programming. Pen House. 2003.

3.Kathy Sierra, Bert Bates, Advance java programming, Tata McGraw Hill-2002.