PROJECT REPORT

TERMINAL MONITORING SYSTEM

SUBMITTED IN PARTIAL FULFILMENT OF THE DEGREE OF

MASTER OF COMPUTER APPLICATIONS

by

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Under the guidance of

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Certified that this Project entitled

TERMINAL MONITORING SYSTEM

is a bonafide work carried out by

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Abstract

The project is to design a tool which will helps the administrator to find the misuse of the system. The syste will automatically indicate the user's action (such as browsing, chatting, simple login session) by changing the colour of the terminal symbol. Administrator can also see the user's screen with login details. It allows the administrator to save the details (including the screenshot) and the administrator can block the user, on finding any misuse.

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Chapter 1

Introduction

This work is specifically to design a program that provides a tool, which helps to find the system misuse and to save the details.

Chapter 2

System Analysis

System analysis is a study of the existing system, various activities carried out by the system and their relationships within and outside of the system. System analysis evaluates the advantages and disadvantages of the existing system. Based on this the new system is designed.

2.1 Problem Definition

The aim of the project is to implement a Terminal Monitoring System (TMS) to select, capture and save active user screens of machines connected to a server.

2.1.1 Input:

IP address or terminal icon

2.1.2 Output:

Screen shot with login details and provision to save the screen shot and disable the login.

2.2 Motivation

In a multiuser environment there are chances of users misusing the system. So the administrator will need to track the misuse. The propsed system will give the administrator a chance to track and prevent the internet related misuse of resources to some extend.

2.3 Existing System

The present system is manual, the administrator has to check the user's action manually. It will be a very tedious job for the adminitrator.

2.4 Proposed System

The main purpose of the proposed system is to ease out to find the misuse of the system. It will help the network administrator. Administrator can see the user's action by looking the terminal symbol. He can see the user screen and can also save the details. It will also helps the administrator to block the user login.

2.5 Operational Requirements

2.5.1 Software and Hardware Requirements

1.Linux 8.2
2.Qt Designer
3.C++

2.5.1.1 Linux 8.2

The primary requirement for the 'Terminal Monitoring System' is good linux server. Linux version 8.2 is used as the server throughout the application development process.

2.5.1.2 Qt designer

Qt Designer is used to develop the interface for the tool.

2.5.1.3 C++

C++ is used for the coding.

Chapter 3

System Design

Since this is a system level application DFD is used to show the flow of the system. The figure[1] shows the initial setting up of the system. It is a one time process. Figure[2] gives login setup process. The output module is explained in figure[3]. Figure[4] gives the way in which system tracks the net and chat connections.

3.1 System setting module

This is a one time process. Each terminal will have a terminal ID and the administrator will set the IP addr ess for each of them. The administrator will also set the directory path for saving screenshot files.

3.2 Login event Tracker

This will track the login details of the terminals. When a user is logging to the server via a terminal the login name, login time, and the terminal ID will be set. It will also enable (highlight) the terminal symbol. Logging off fr om a server will result in the trminal icon being turned off.

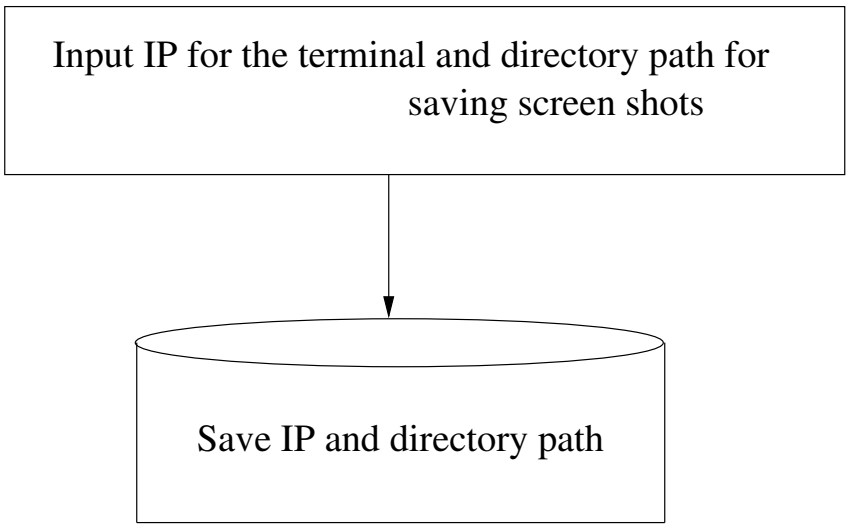

Figure 3.1: System setting module

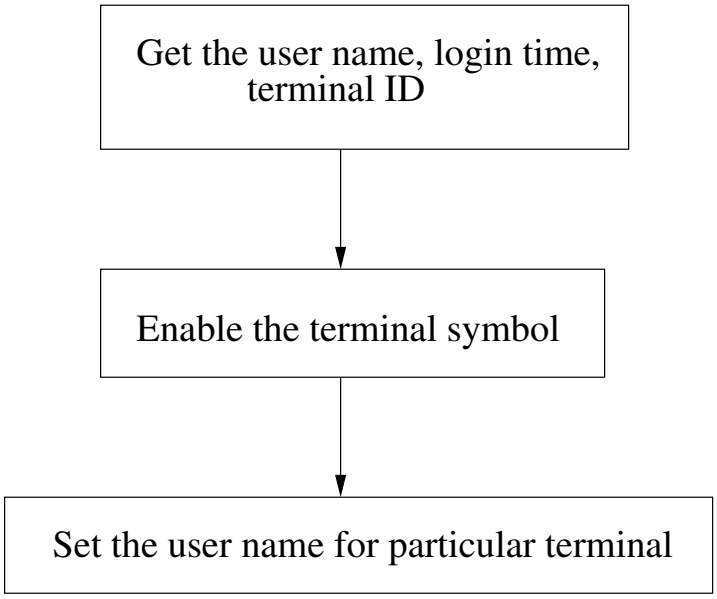

Figure 3.2: Login event Tracker

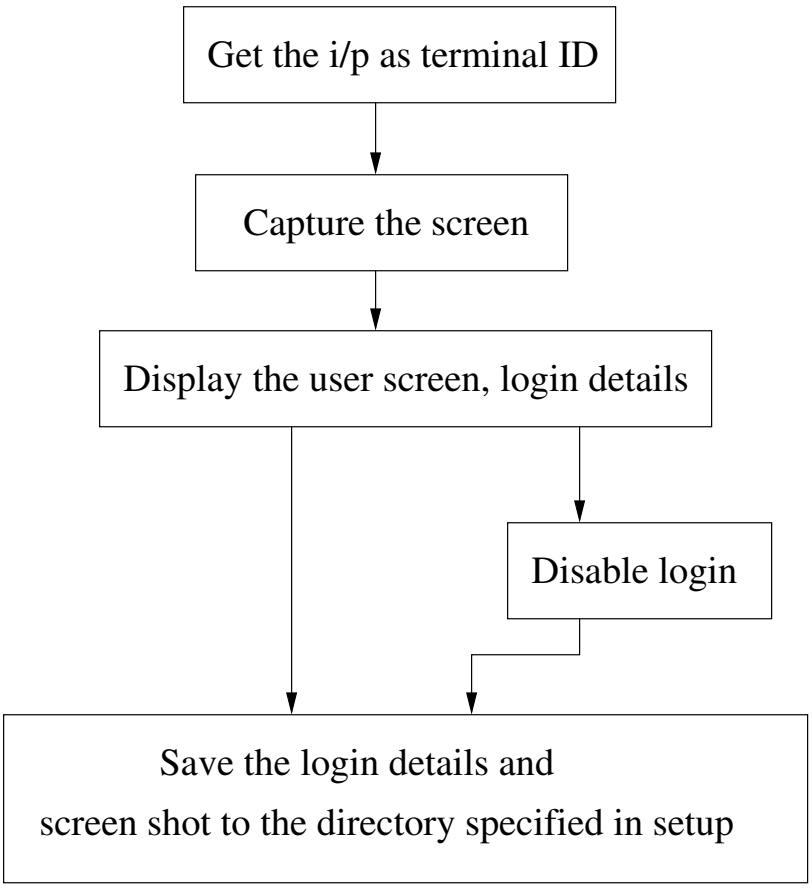

Figure 3.3: Terminal Tracker

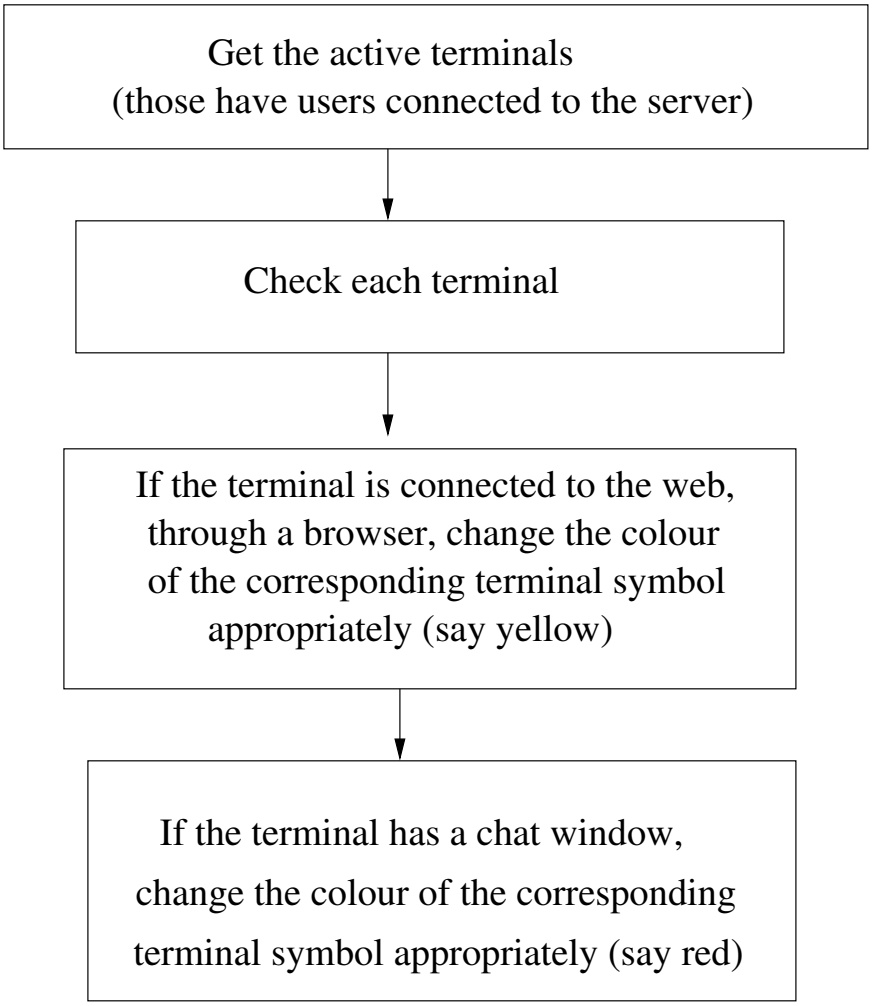

Figure 3.4: Chat & net handler

3.3 Terminal Tracker

This module will interact with the administrator or the system users. It will accept the terminal ID (a clic k on an active terminal icon) and the login details of the user along with the current display of the terminal will be shown . The system user can then save the details and also can block the login.

3.4 Chat & net handler

This module is resposible for tracking the net and chat connection at the terminals. It will automatically c heck the terminal and if any connection (net or chat) exist at the terminal it will change the colour of the terminal symbol appropriately.

Chapter 4

Implementation

4.1 Introduction

Implementation is the process of converting design to code. The modules identified from design to be implemented.

4.2 Prerequisites

the system is implemented in C++ and Qt Designer. Qt designer is used for GUI development.

4.3 Implementation Issues

1. Sets the terminal icons according to the user's action.
2. Accept the terminal ID through the interface and display the screenshot of the terminal and login details.
3. Save the screen shot and login details to a file.

4.3.1 Setting terminal symbols

This module of the system will automatically sets the teminal icon's colour according to the users action. The colour of the symbol is set to red if the user has a chat window, and is change to yellow if the user has browser window. The colour will be green if it is a symbol login session.

4.3.2 Show details

This module will accept the terminal ID through the interface and will displays the terminal screen and login details.

4.3.3 Save details

This module will save the login information and the screenshot to a file.

Chapter 5

Testing

The system developed has to be tested to check whether it conforms to the specification. The testing is done o guarantee that the system is functioning as defined in the specification and is free of known errors and bugs. Black box testing is mainly used as the test strategy. The black box testing is to check whether for each input the correct predefined output is obtained. First each module is tested and then each subsystem and finally the system is tested to make free from errors (that is the bottom up approach).

Chapter 6

ScreenShots

dont print this

Bibliography

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