CORPORATE REMOTE TASK MANAGER

FOR

CBK INFOTECH INDIA (P) LTD., BANGALORE

PROJECT REPORT

Submitted in partial fulfillment of the requirements for the award of the

degree of

M.Sc Applied Science Software Engineering

Of Bharathiar University

Coimbatore

Submitted By

SUDHARSHAN.R

Reg. No. 0137S0057

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KUMARAGURU COLLEGE OF TECHNOLOGY

COIMBATORE – 641 006

SEPTEMBER 2004

KUMARAGURU COLLEGE OF TECHNOLOGY

(Affiliated to Bharathiar University)

Department of Computer science and Engineering

Coimbatore – 641 006

CERTIFICATE

This is to certify that the project work entitled

CORPORATE REMOTE TASK MANAGER

Done By

SUDHARSHAN.R

Reg. No. 0137S0057

Submitted in partial fulfillment of the requirements for the award of the degree M.Sc Applied Science Software Engineering of Bharathiar University.

Professor and Head 23/9/04

Internal Guide

Submitted for the University examination held on .....

Internal Examiner

External Examiner

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Ref No. CBK/CT/1009/2004/02 Date:10.09.2004

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Sudharshan.R , (Reg . No. 0137S0057)** of **Kumaraguru College Of Technology**, Coimbatore has successfully completed the project titled **'Corporate Remote Task Manager'** in compliance with the requirement of partial fulfillment of the **Master Of Science.** He was associated with us during the period from June -2004 to September-2004.

As per our company policy the source code is a property of CBK Infotech India (P) Ltd. And it cannot be disclosed.

For and on behalf of CBK Infotech India Pvt Ltd.

HR Manager

DECLARATION

DECLARATION

I hereby declare that the project work entitled

CORPORATE REMOTE TASK MANAGER

Done at

CBK INFOTECH INDIA (P) LTD, BANGALORE
And submitted to

KUMARAGURU COLLEGE OF TECHNOLOGY

In partial fulfillment of the requirements for the award of the degree

M.Sc. APPLIED SCIENCE (Software Engineering)

Is a report of work done by me during my period of study in

Kumaraguru College of Technology, CBE – 641 006

Under the supervision of

Ms.P.Parameswari, M.C.A,
Lecturer, Dept of Computer science & Engineering,
Kumaraguru College of Technology, Coimbatore.

Place: Coimbatore
Date : 23.09.04

Signature of the Candidate
SUDHARSHAN.R
(Reg. No. 0137S0057)

ACKNOWLEDGEMENT

ACKNOWLEDGEMENT

To add meaning to the perception, it is my indebtedness to honor a few who had helped me in this endeavor, by placing them on record.

With profound gratitude, I am extremely thankful to Dr.K.K.PADMANABAN B.Sc. (Eng), M.Tech, Ph.D., Principal, Kumaraguru College of Technology, Coimbatore for providing me an opportunity to undergo the M.Sc APPLIED SCIENCE (SOFTWARE ENGINEERING) course and thereby this project work also.

I extend my heartfelt thanks to my Computer Science & Engineering Department head, Prof.Dr.S THANGASAMY B.E (Hons), Ph.D., for his kind advice and encouragement to complete this project successfully.

It's my privilege to express my deep sense of gratitude and profound thanks to Mr. ISHWAR, Software Engineer, CBK InfoTech India (P) Ltd., Bangalore for having allowed me to do my project work in his esteemed team and for helping me in all means in successful completion of this project work.

Gratitude will find only a least meaning without thanking my course coordinator Mr.K.R.BASKARAN, B.E, M.S., Assistant Professor, Dept of Information Technology and my guide Ms.P.PARAMESWARI, M.C.A, Lecturer, Dept of Computer Science & Engineering for the valuable guidance and support throughout my project.

Words are boundless for me to express my deep sense of gratitude and profound thanks to Ms. SUNAINA, Ms. DINCY JOSEPH, Ms. JAYASURYA and all my associates at CBK InfoTech India (P) Ltd., for all their kind guidance and encouragement towards my project work.

My gratitude is due to all staff members of CSE department, my parents and all my friends for their moral support and encouragement for successful completion of my project.

SUDHARSHAN.R

(Reg. No. 0137S0057)

SYNOPSIS

SYNOPSIS

The world has been become small by networking. People can communicate with each other being remotely placed. At the present scenario, it is difficult task for the system administrator to maintain the client machine performance for better output just by sitting at the server side. To inspect and monitor the activities on a client machine is not an easy task for the system administrator.

Corporate remote task manager (CRTM) is a network solution to the system administrator for various reasons. The objective of the project is to design such a system that will work at the server side to provide the remote system control to the system administrator. The system will be capable in handling many tasks which are the features and the core service part of the Windows NT/2000/XP. This CRTM consists up of a major part called remote manager.

- Remote manager is a server which administers each and everything of the client applications, processes, services, devices, shares, events, devices, networking, performance, etc.

By using this CRTM user can save time and CRTM user can control the misuse of the system and the devices connected to it. The administrator can remotely control a system to avoid any criticality in the system, thus saving the time and efficiency. CRTM reduces the time accessing the above said functions from the point of his workstation only, in the sense that he need not have to go to individual system and the users to access their functionality and progress in the jobs assigned. The working time of the user is also not wasted as accessing can be done online only. He also sees to it that the system and the working hours are not misused. He has entire control over the system, its application, and its working.

So the project can be confined as the task of integration of the existing technology and the creation of new technology to the maximum level possible so that it reduces the time and cost significantly and the system can be utilized and implied in the suitable way as possible.

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INTRODUCTION

1. INTRODUCTION

"Corporate Remote Task Manager" (CRTM) manages the whole corporate network and provide vital information on the performance of Operating System running on the network in terms of memory, devices, services, processes etc..

This project provides the administrator a freedom to control and update the entire computer that is being networked in an easy and efficient way. The CRTM gives the user an organized way to monitor the status of the operating system.

The main aim of this project is to design such a system that will work at the server side to provide the remote system control to the system administrator. The system will be capable in handling many tasks which are the features and core service part of the windows NT/2000/XP.

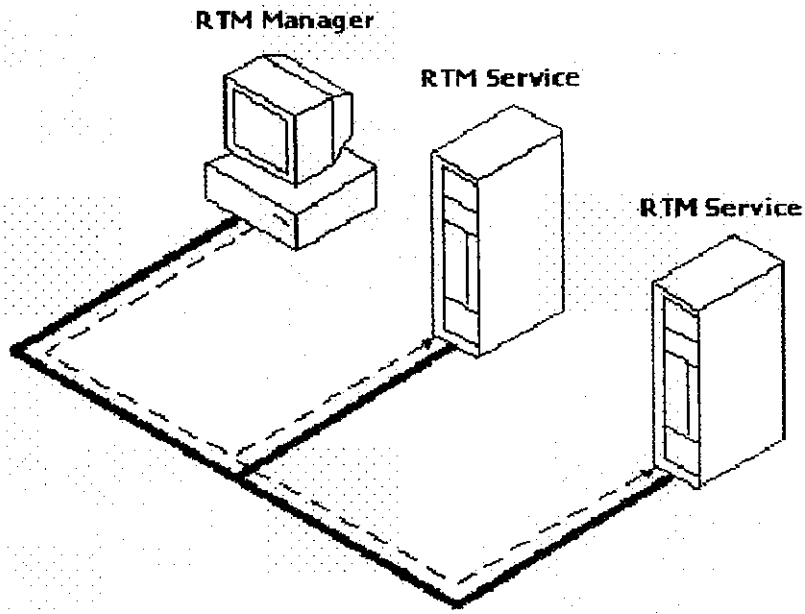
The CRTM controls the applications, processes, services, devices, shared resources, events and computer performance over the network. The world has been become small by networking. People can communicate with each other being remotely placed. At the present scenario, it is difficult task for the system administrator to maintain the client machine performance for better output just by sitting at the server side.

The role of a task manager is uniquely defined as the useful tool for controlling the operations of an existing system. It is useful in several aspects such as controlling, maintaining, executing the applications, processes and in understanding the performance, details regarding the users connected to the existing system. The task manager is also useful in understanding the networking concepts of an existing system.

1.1 PROJECT OVERVIEW

The project deals with an integration of networking technology with operating system so that both can be used efficiently and effectively. The maintenance of a proper communication channel is an ultimate necessity in the success of any corporate entity.

RTM MANAGER AND RTM SERVICE INTERACTION



To accomplish this task we have CRTM whose main aim is to significantly reduce the total cost and total time spend for the network management. The CRTM consists up of a main module viz, CRTM Manager.

The CRTM Manager controls the tasks, processes, services, devices, shared resources, events and the computer performance over LAN.

So the scope of the project can be confined as the task of integration of the existing technology to the maximum level possible so that it reduces the time and cost significantly and the system can be utilized and implied in the suitable way as possible.

In this document the following terms are defined which should be read with the meaning specified, unless implied by the context.

CRTM - Corporate Remote Task Manager.

Remote manager- Remote manager is a server which administer each and everything like client events (start, stop and lock), devices etc.

Remote console- Remote console is just like remote manager but the difference is it works through command line interface.

Remote services- Remote services are a client which gets services from both the remote manager and the remote console.

Monitor-A Monitor also known as Network Monitor is a software program that monitors network data stream which consists of all information transferred over a network at any given time

Services -A client requests a server for various services to be provided for its better performance.

Connection-A transport layer (virtual circuit) established between two programs for the purpose of communication.

1.2 ORGANIZATION PROFILE

CBK InfoTech: Partners of TCS (Tata Consultancy Services) is world class software led IT services. CBK InfoTech is an IT service company providing a range of value added software services to:

- Hardware product companies
- Software product companies
- End-user in large and medium business organization.

The information is the hallmark of today's world. A drive for productivity and the ability to offer quality solutions on information superhighway are the key to development. CBK InfoTech India (Pvt.) Ltd. (hereby mentioned as CBK as well as company) has mirrored.

There is no shortcut to success so as in the case of IT industry too. It is never possible without innovation, an eye for vision, a strong will to succeed and unlimited quality service. Quality objectives, precise and time bound are the root criteria for success and development is not an exception with CBK.

CBK will leave no stone unturned to reach its customer to the topmost rung of ladder success. A result that is translated at CBK, i.e. - in tune with technology with time and trust, truth and tradition, and requirement is the principle assets.

CBK has two divisions working at the moment - Training division as Compu Home and a software development division. It is the development division that is offering this project training as detailed in this document.

CBK provides the state of the art technology like COM, COM+, Active-X, ASP, 3-tier solutions etc. and limited support of its clients in India and abroad. CBK also provides Consultancy services for all IT related matters to its clients. With the revolving strategy and re-structuring, CBK has now started offering Web based solutions and gearing towards providing the E-Commerce / M-Commerce solutions to its existing and new clients.

Work related areas @ CBK:

- Web Page designing and hosting
- Internet and Intranet Solutions
- Web based applications development
- Client / Server Applications Development
- Re-engineering
- Research & Development in WAP
- Corporate training
- High-end User Training (Vocational)

CBK is managed by professionals with a wealth of experience in IT field. CBK is promoted by Mr. Chandra Bhushan, an engineering graduate with more than 10 years of experience in IT and is co-promoted by Mrs. Kiran C.B. and Mr. I.B. Sharma. The Human Resources Management team is lead by Mr. Sanjeev Kumar, a HR professional. CBK has strategic and technical alliance with M/S Namsoft Solutions, Bangalore headed by Mr. Rajesh Ranjan, known for his technical abilities and consulting services in IT sector for more than10 years.

The technical team at CBK has a combined IT experienced of more than 15 years in tools as follows

- C / C ++ / VB / VC++ / Java / Developer 2000
- Access / MS SQL Server / Oracle
- HTML / DHTML / ASP
- COM / COM+ / D-COM / MTS
- Visual Interdev / Front Page
- Adobe products / Macromedia Products

SYSTEM STUDY AND ANALYSIS

2. SYSTEM STUDY AND ANALYSIS

➢ METHODOLOGY AND WATERFALL METHOD

Software development is a process which directly related to production of the software, for example, design, coding, and testing. A development process model specifies some activities that should be performed, and the order in which they should be performed. The development phases are generally phased according to cost, quality, and project management reasons.

My project work carried according to the specifications of Waterfall method. Waterfall method is one of the most reliable methods in developing a software project. It is "Linear Sequential Model" which suggests a systematic and sequential approach to software development. There are various variations in waterfall model depending on the nature of the activities and flow of control between them.

➢ FEASIBILITY STUDY

CRTM is feasible to design, develop, use, and maintain in all respects. The project is feasible under given resources and time.

My project consists up of the following phases of waterfall model.

o REQUIREMENT ANALYSIS AND PROJECT PLANNING

Before starting the design of the project, I analyzed in detail, the requirements of the project which includes system requirement specification, software and hardware requirements and then after project planning is done with the help of requirement analysis.

o DESIGN

After successful analysis of system requirement, design of the project started where various design constraints are analyzed. The design phase consists up of ten modules each of which designed to do a specific task. A functional

design methodology is used in this design phase. The top-down strategy is approached in the design constraint.

- CODING

The goal of the coding or programming phase is to translate the design of the system produced during the design phase into code in a given programming language. The coding is done according to the modules. The coding is done for creation of Property sheet which consisting of ten property pages to exhibit different modules of the project. The source code makes use of some standard windows built-in header files, API (Application Programming Interface) functions, and structures to ease coding.

- TESTING

The testing is done on the system to assure quality and reliability of the software. During testing, the program is tested by executing with a set of test cases and then output of the program for the test cases is evaluated to determine if the program is performing as expected.

In my project I have used Top-Down testing strategy to ensure module level testing which encourages incremental testing. First some main parts of the project were tested independently. Then these parts are combined together forming subsystems, which are then tested separately.

2.1 SOFTWARE REQUIREMENT SPECIFICATION

The software requirement specification of the proposed system involves the specification of application, operating system, language and the software environment or the technique used to develop the proposed system.

Below is the list of software used in the developing this project.

- SOFTWARE REQUIRED

Operating system	:	Windows 2000/NT/XP
Environment	:	LAN (Local Area Network)

Language	:	Visual C++ 6.0 [MFC]
Technique	:	WIN32 API's

2.2 EXISTING SYSTEM

The existing system i.e., the task manger found in the operating systems such as windows NT/2000/XP gives access to only the following parts.

- Applications
- Processes
- Performance
- Networking

The network administrator could not access the task manager of the client system connected to the server in any of the LAN (Local Area Network) from the server side task manger. He can perform the operations such as

- Stand by,
- Hibernate,
- Restart,
- Shutdown,
- Log off,
- Switch user, etc.

2.3 PROPOSED SYSTEM

The proposed system i.e. the CRTM is more powerful and useful than the existing system in all aspects. CRTM is a unique tool for the system administrator to inspect and to monitor all the activities on a client machine and its performance enhancing by just sitting at the server side.

- PRODUCT PERSPECTIVE

The Proposed system is purely for the corporate management. The use of the system's features is significant on the LAN.

The Proposed System should be capable in providing the following mentioned services:

- ✓ Applications
- ✓ Processes
- ✓ Services
- ✓ Performance
- ✓ Devices
- ✓ Events
- ✓ Network history
- ✓ Network statistics
- ✓ Hardware resources and shares

- PRODUCT FUNCTIONS

The product functions are enlisted below:

- ✓ CRTM monitor all running tasks, processes, services, devices, shared resources and events on remote computers.
- ✓ CRTM watch features of running tasks (the handle of the main window, process id, etc.).
- ✓ CRTM watch features of running processes (process id, CPU time, privileges used, memory, priority, etc.).
- ✓ CRTM ends a selected task correctly.
- ✓ CRTM terminates a selected process at any time.
- ✓ CRTM changes the priority of the processes.
- ✓ CRTM control which CPUs the process will be allowed to execute on.

- ✓ CRTM stop, start, restart, pauses and continues any selected service or device.
- ✓ CRTM change start-up parameters of a service or a device (name, account, start-up type, dependencies, etc.).
- ✓ CRTM change service's repair parameters on windows 2000/XP.
- ✓ CRTM adjust service's and device's security (permissions, auditing and owner).
- ✓ CRTM monitor a dynamic overview of the computer's performance (CPU and memory usage).
- ✓ CRTM monitor a dynamic overview of network performance.
- ✓ CRTM manage shared resources on remote computers.
- ✓ CRTM shutdown and reboot remote computers.
- ✓ CRTM creates processes on remote computers.
- ✓ CRTM lock computers remotely.

PROGRAMMING ENVIRONMENT

3. PROGRAMMING ENVIRONMENT

The programming environment specifies the hardware used and the description of the software and the tools used during the development phase of the system.

3.1 HARDWARE CONFIGURATION

The hardware requirements of the system is in the following list,

- Processor-Pentium 133 MHz
- RAM -32 MB
- HDD-2 GB
- Monitor-14" color monitor
- Keyboard and other peripheral devices
- NIC (Network interface card)
- LAN (Local Area Network)

3.2 DESCRIPTION OF SOFTWARE AND TOOLS USED

❖ ABOUT VISUAL C++ 6.0

To develop the CRTM system we used the most flexible and reliable tool of Microsoft Corporation, called Visual C++ 6.0.Visual C++6.0 is one of the most popular programming languages in the market today. Microsoft has positioned it to fit multiple purposes in development.

Visual C++ 6.0 is designed to set up applications across the enterprise and to scale to nearly any size needed. The ability to database integration and Internet/intranet applications provides an extensive range of capabilities and tools for the developer. Among the modern programming languages Visual C++6.0 plays an essential role. In the field of development it can be applied to multiple purposes very easily. Moreover it is a product of Microsoft. As like any other product of Microsoft Visual C++6.0 is also very easy to use.

We can easily develop applications and enhance it using Visual VC++6.0. Visual Platform is

- Ease to Use.
- Flexible.
- Ease to Enhancement.
- Easy to Understand.

❖ ABOUT APPLICATION PROGRAMMING INTERFACE

The Window's 32-bit application programming interface (API) is an extensive set of functions, messages, and structures that allow programmers to build applications that run on Windows platform. The API has a similar foundation for Windows NT Workstation, and Windows NT Server.

The Windows API functions, messages, data structures, and constants can be categorized as:

➢ WINDOW MANAGEMENT

The window management features give your applications the means to create and manage a user interface.

➢ GRAPHICS DEVICE INTERFACE (GDI)

The graphics device interface (GDI) provides functions and related structures that your application can use to generate graphical output for displays, printers, and other devices.

➢ SYSTEM SERVICES

System Services are a set of functions that give applications access to the resources of the computer and the features of the underlying operating system such as memory and the file system. These functions are essential to the basic operation of the system.

➢ MULTIMEDIA

The multimedia functions give your applications access to audio and video.

➢ REMOTE PROCEDURE CALLS (RPC)

Remote Procedure Calls (RPC) give applications the means to carry out distributed computing, letting the applications tap the resources and computational power of computers on a network. RPC is crucial aspect of building client/server applications.

SYSTEM DESIGN

4. SYSTEM DESIGN

The requirement specification activity is entirely in the problem domain. Design is first step in moving from problem domain towards the solution domain. A design can be object oriented or design oriented. I am following function oriented design consisting up of module definitions with each module supporting a function abstraction. I attempted design to create a system, which monitors the activities happening in the network.

Logical design is the important step in system design. In this phase, the collected facts are reviewed. The requirements for the new system are designed. After detail discussion with the users, the objective, the boundaries and the requirements of data involved are identified. The various input and output formats are noted. All types of design, namely input and output design are generated according to the user requirements and to the new system.

4.1 INPUT DESIGN

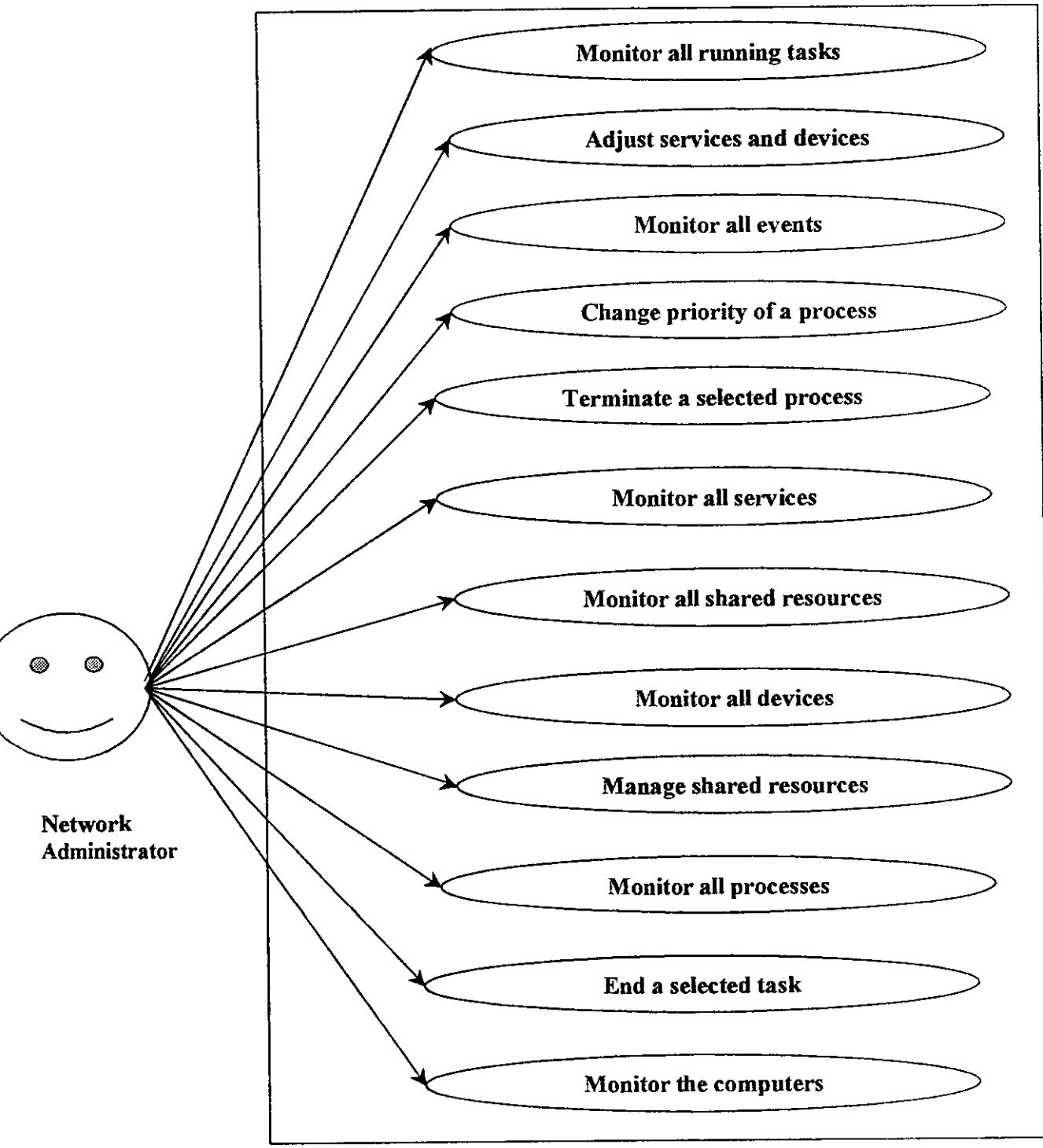
User-friendly screens are provided for input purpose. The main menu consists of headings like File, Options, View and Help. Various sub items are given below each heading. On clicking each item proper dialogs will be displayed where the user can submit his inputs.

4.2 OUTPUT DESIGN

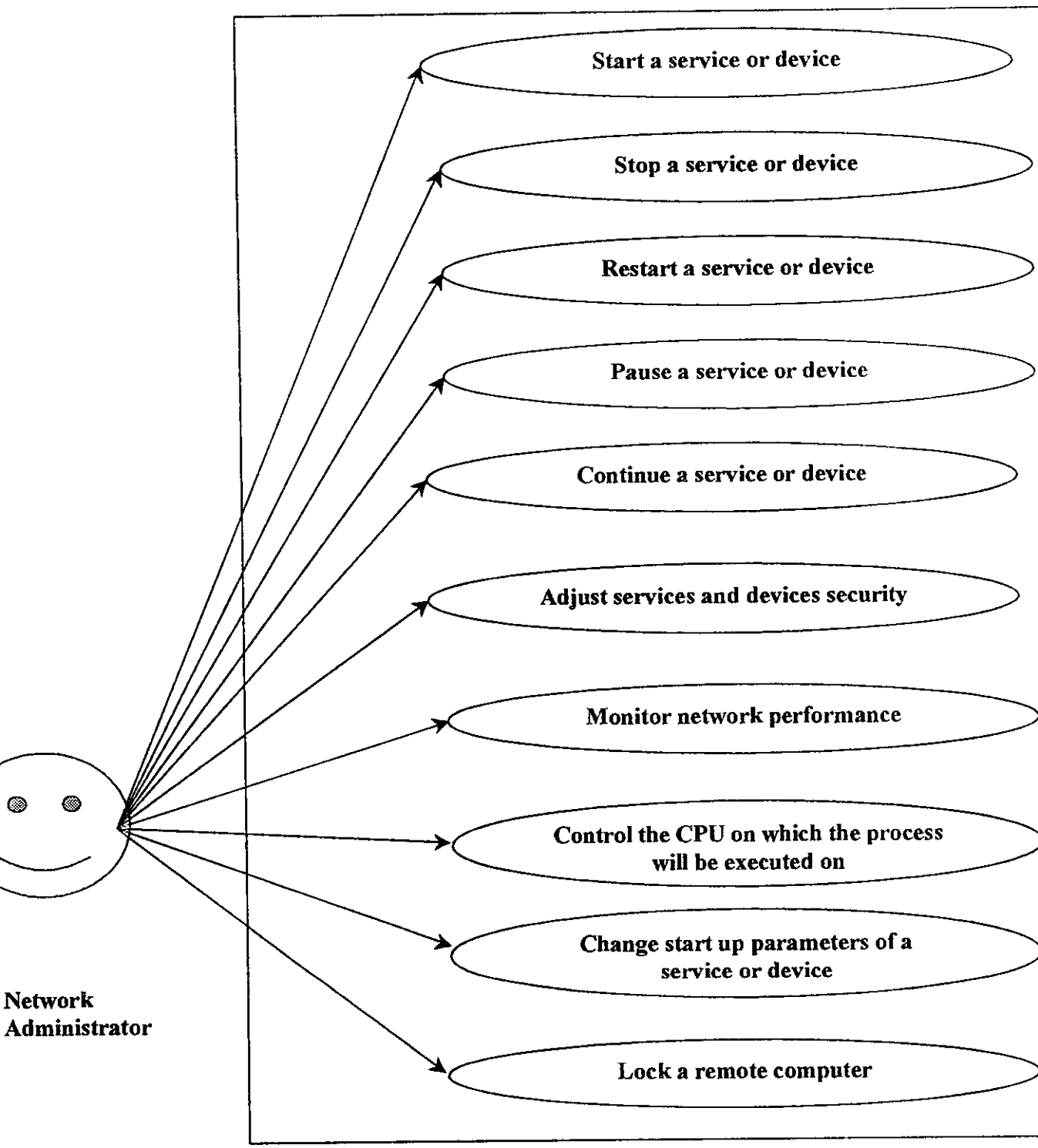
Output is the medium by which user will know what has happened. Here various dialogs are used for this purpose. In this dialogs messages will be splashed to indicate how far an action has been completed. The output design also follows a pure GUI for easier view and performing operations in a cleaner interface.

4.3 ANALYSIS MODEL DIAGRAM DESIGN

(USE – CASE ANALYSIS MODEL DIAGRAM)

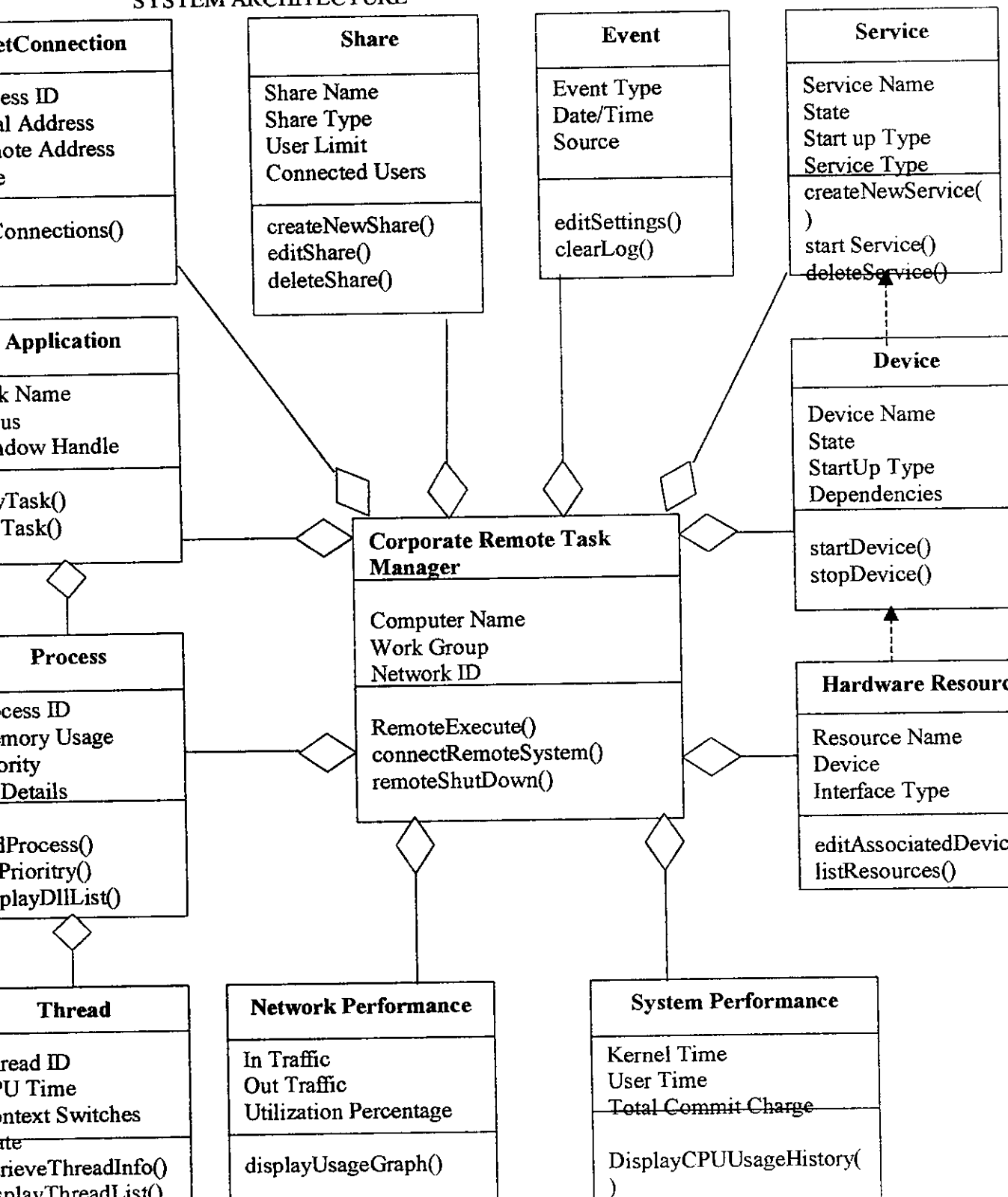


USE – CASE DIAGRAM (Continued)



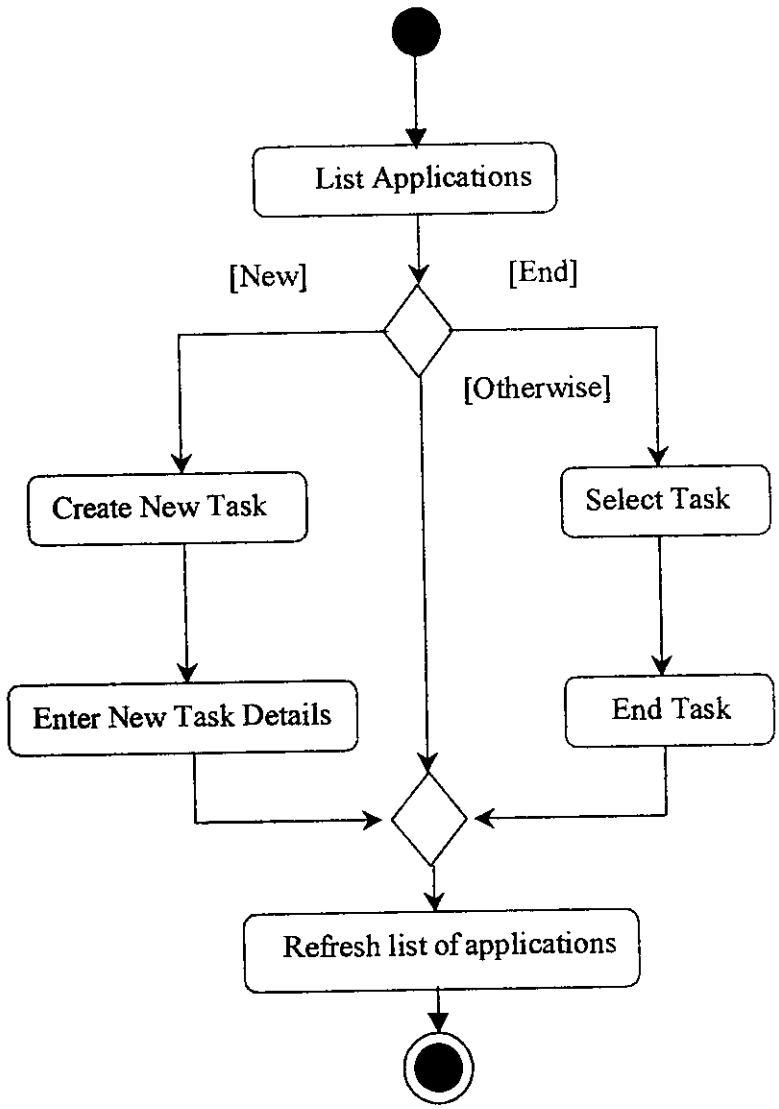
4.4 CLASS DIAGRAM DESIGN

SYSTEM ARCHITECTURE

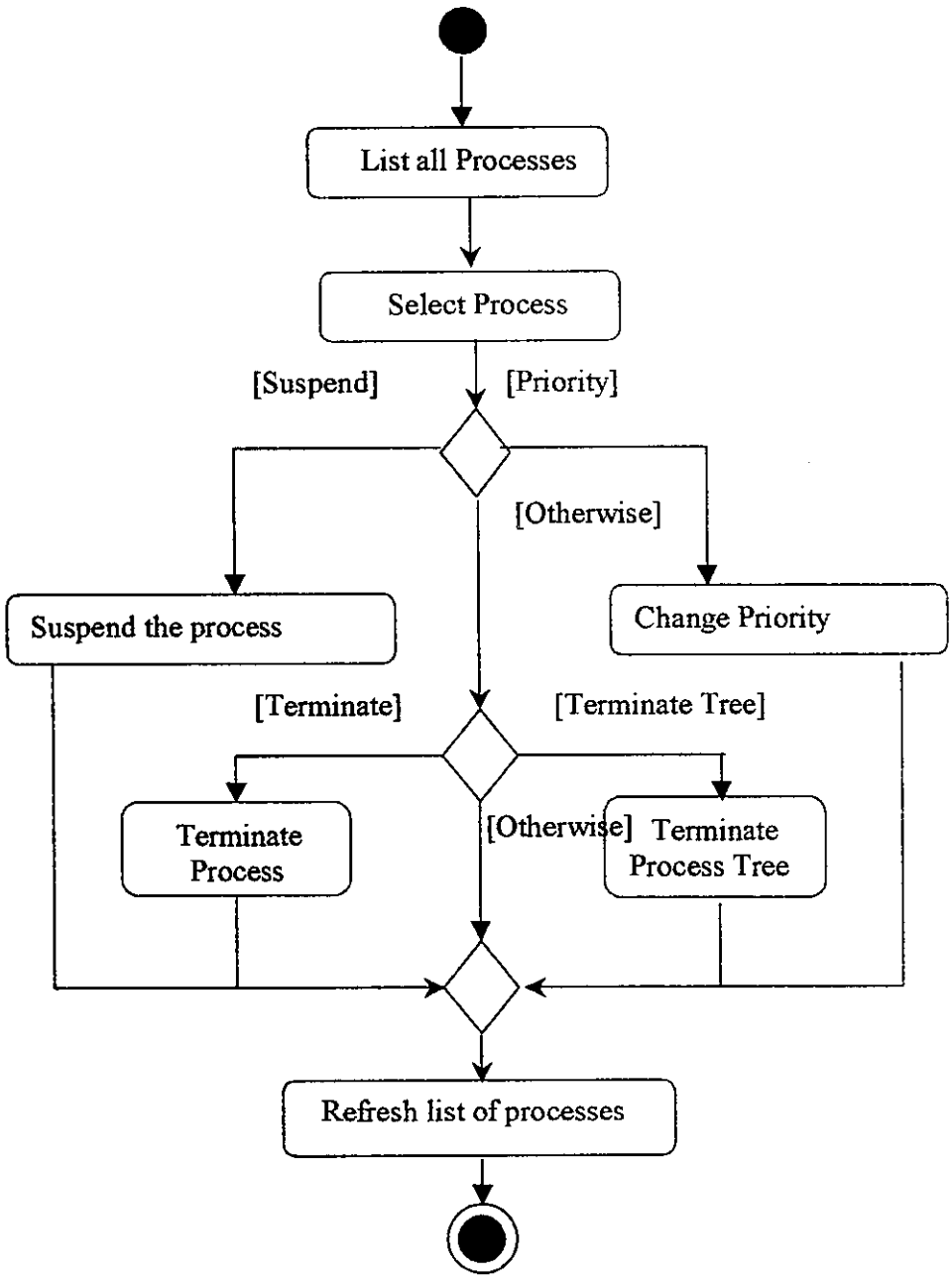


4.5 ACTIVITY DIAGRAM DESIGN

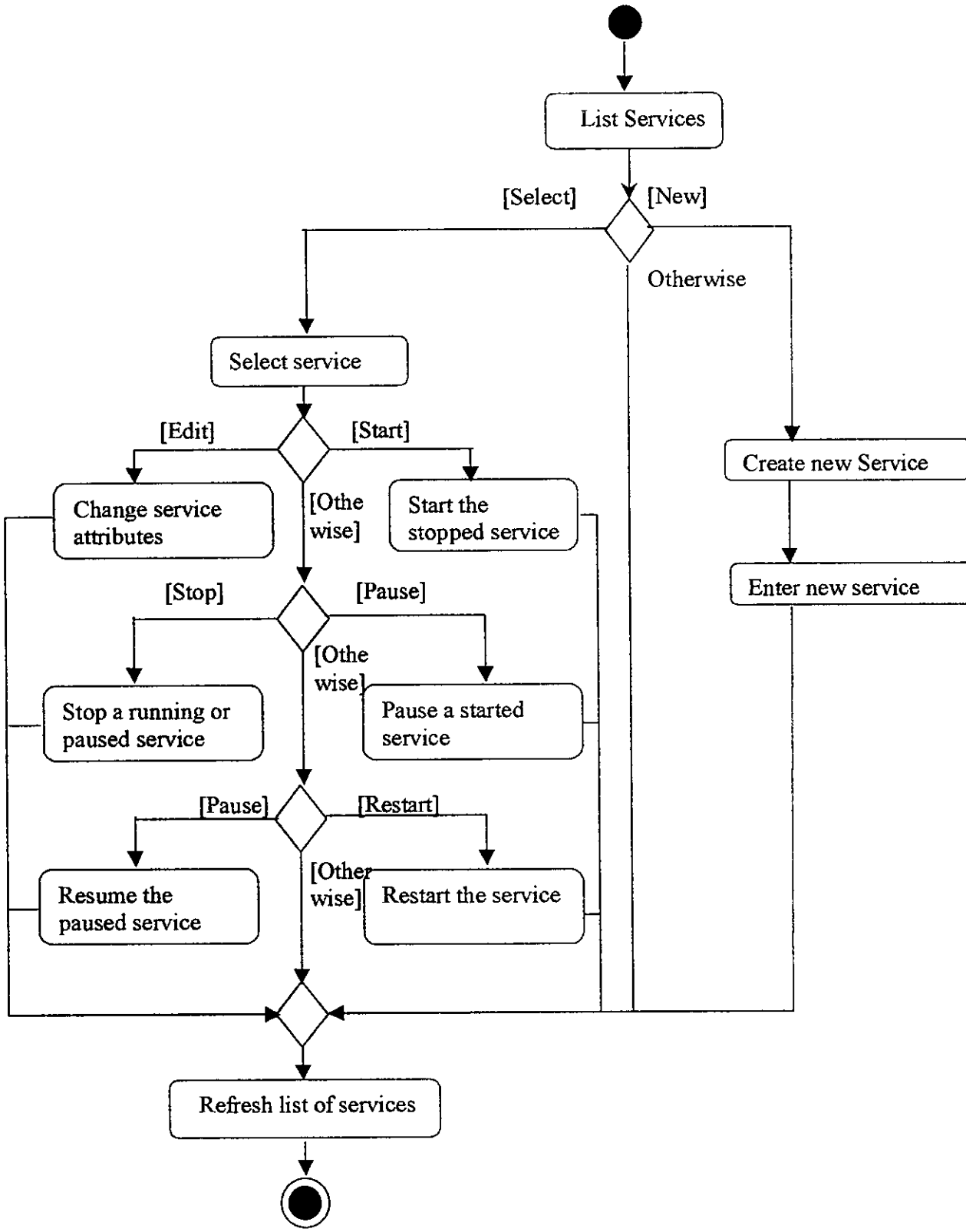
- APPLICATIONS



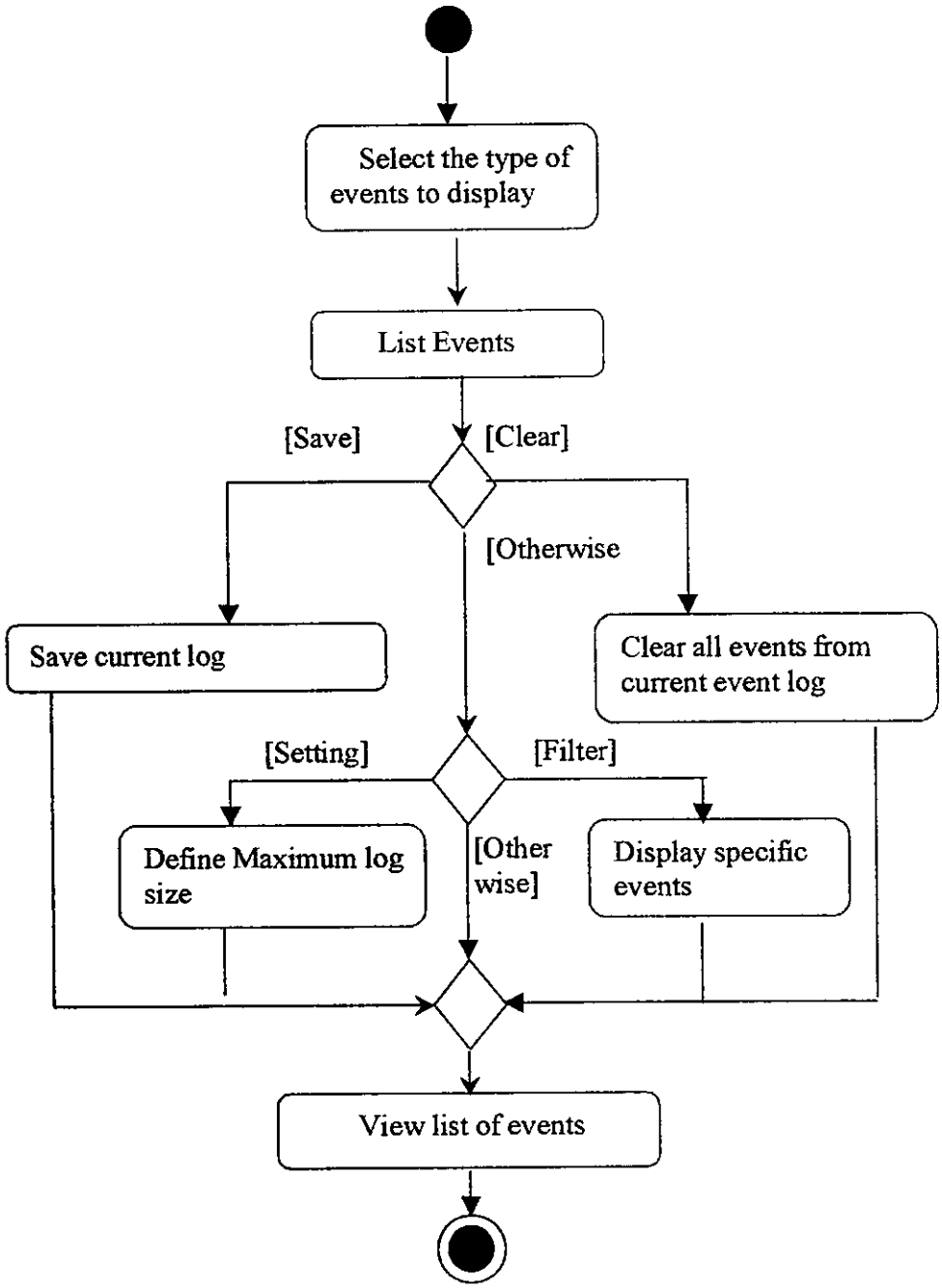
➢ PROCESSES


List all Processes
Select Process
[Suspend]
[Priority]
[Otherwise]
Suspend the process
Change Priority
[Terminate]
[Terminate Tree]
Terminate Process
[Otherwise]
Terminate Process Tree
Refresh list of processes

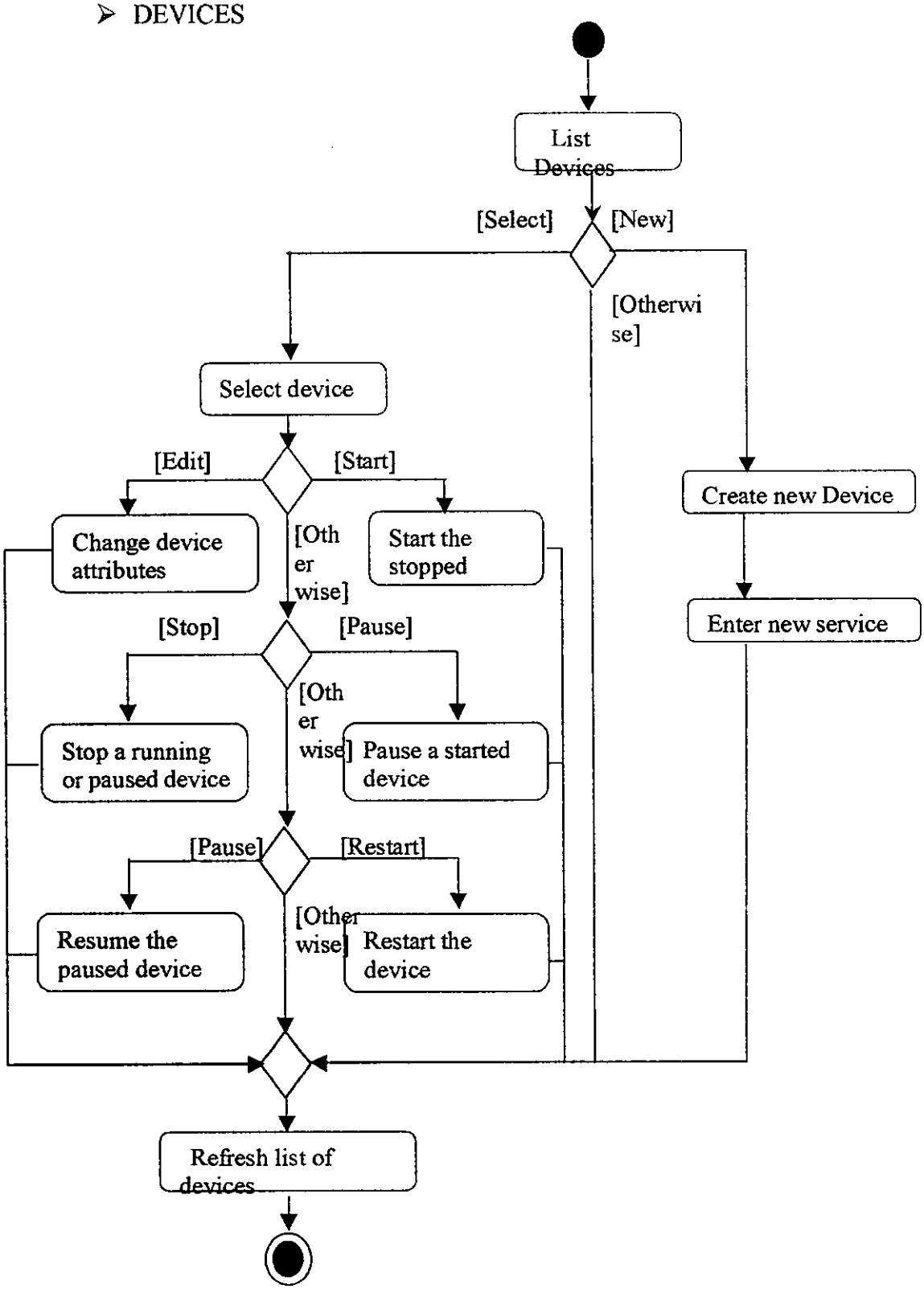
➢ SERVICES


List Services
[Select]
[New]
Otherwise
Select service
[Edit]
[Start]
Change service attributes
[Othe wise]
Start the stopped service
Create new Service
Enter new service
[Stop]
[Pause]
[Othe wise]
Stop a running or paused service
Pause a started service
[Pause]
[Restart]
[Other wise]
Resume the paused service
Restart the service
Refresh list of services

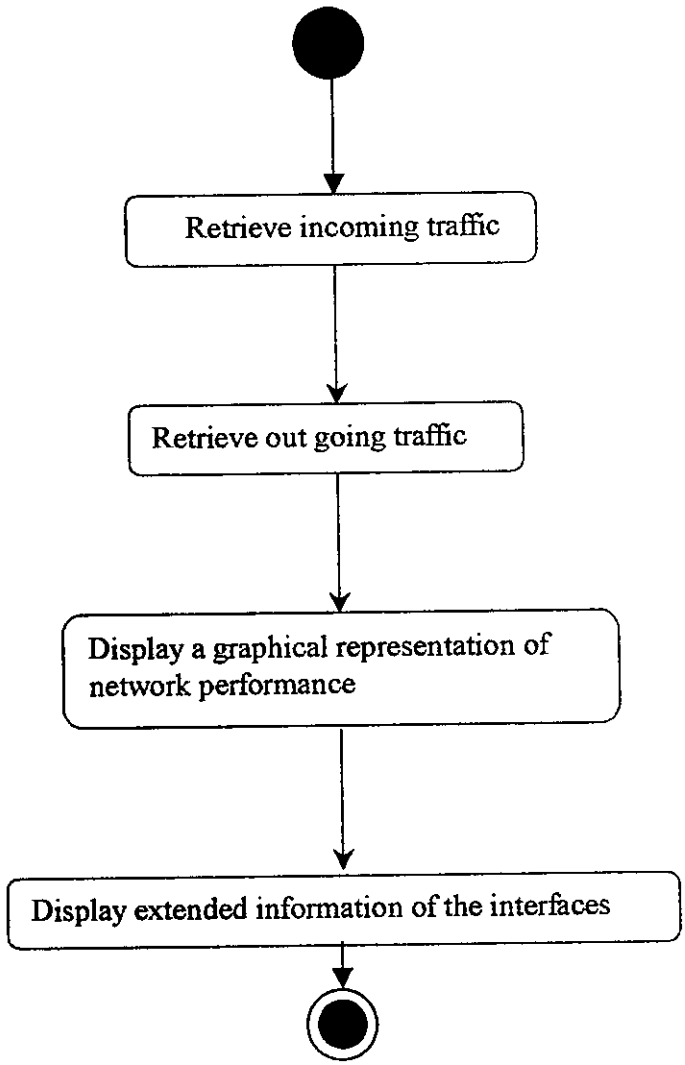
➢ EVENTS


Select the type of events to display
List Events
[Save]
[Clear]
[Otherwise
Save current log
Clear all events from current event log
[Setting]
[Filter]
Define Maximum log size
[Other wise]
Display specific events
View list of events

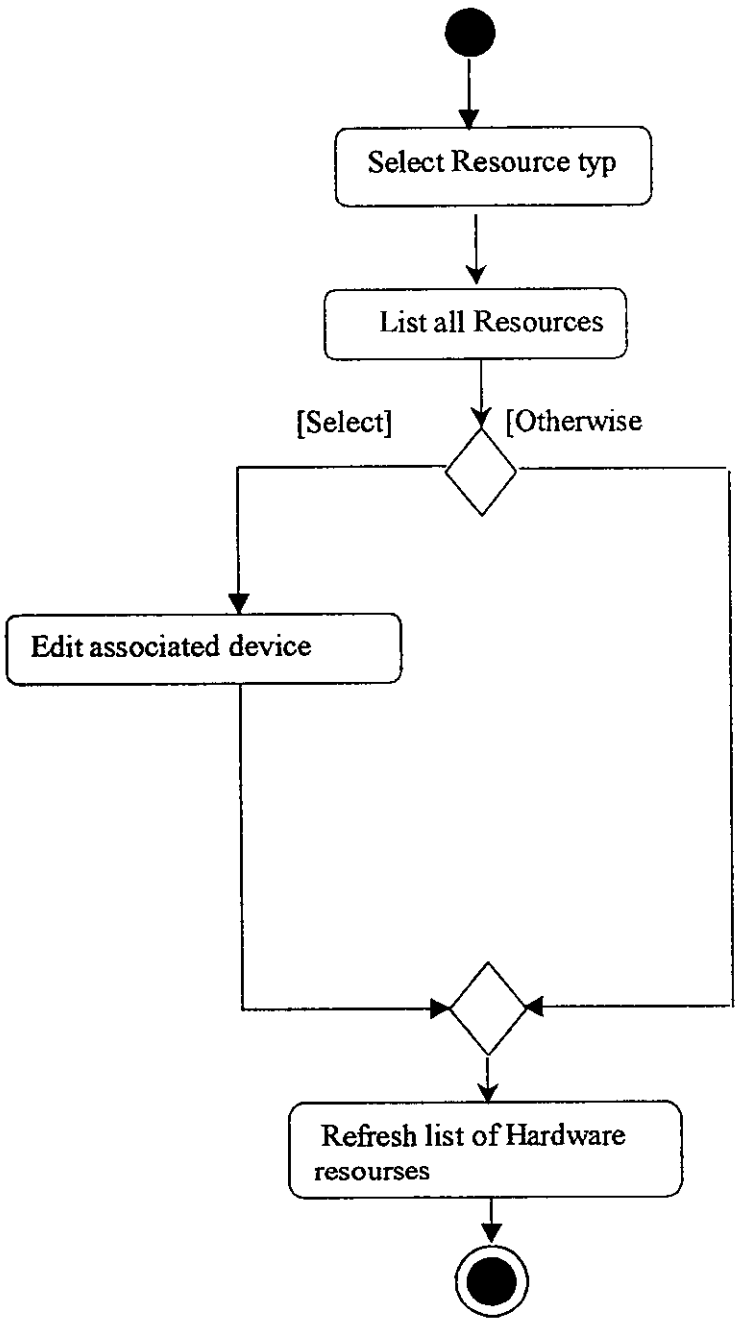
➢ DEVICES


List Devices
[Select]
[New]
[Otherwise]
Select device
[Edit]
[Start]
Change device attributes
[Other wise]
Start the stopped
Create new Device
Enter new service
[Stop]
[Pause]
Stop a running or paused device
[Other wise]
Pause a started device
[Pause]
[Restart]
Resume the paused device
[Other wise]
Restart the device
Refresh list of devices

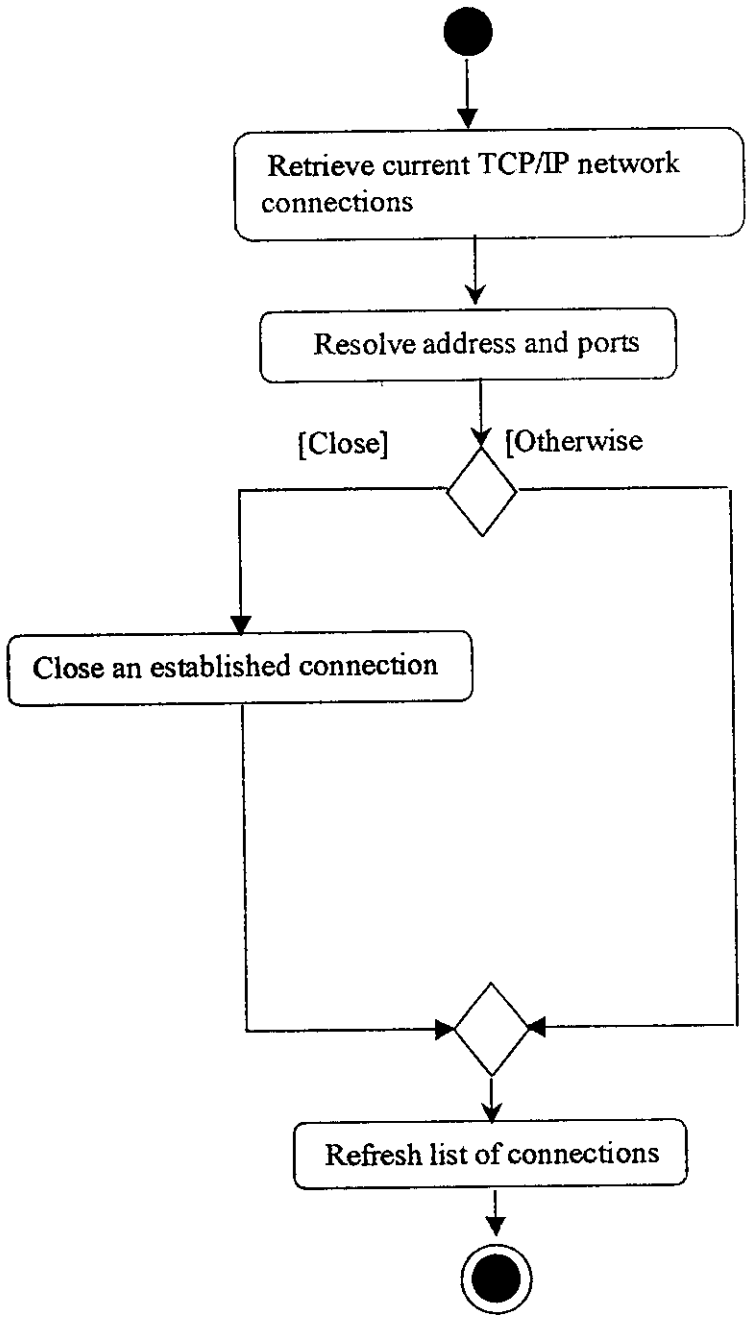
➢ NETWORKING


Retrieve incoming traffic
Retrieve out going traffic
Display a graphical representation of network performance
Display extended information of the interfaces

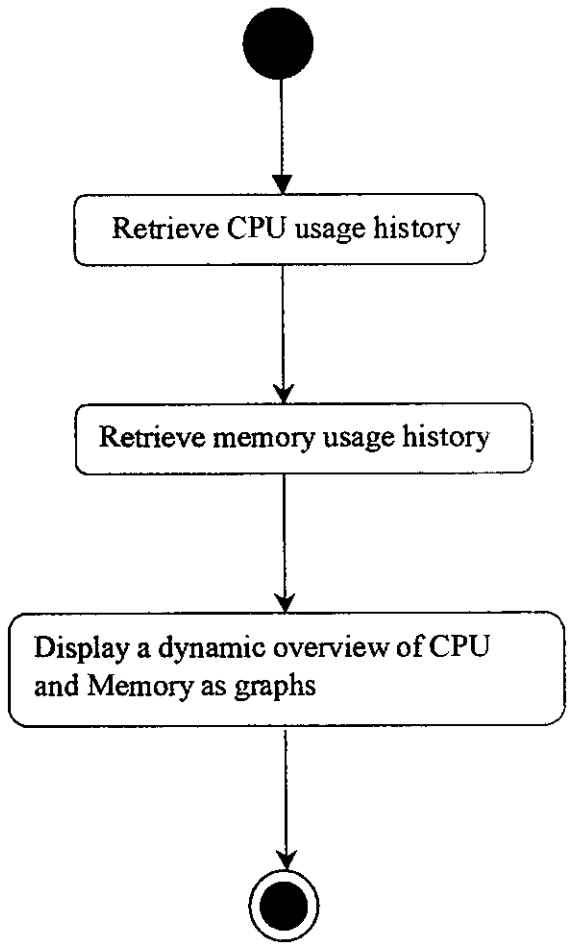
- HARDWARE RESOURCES



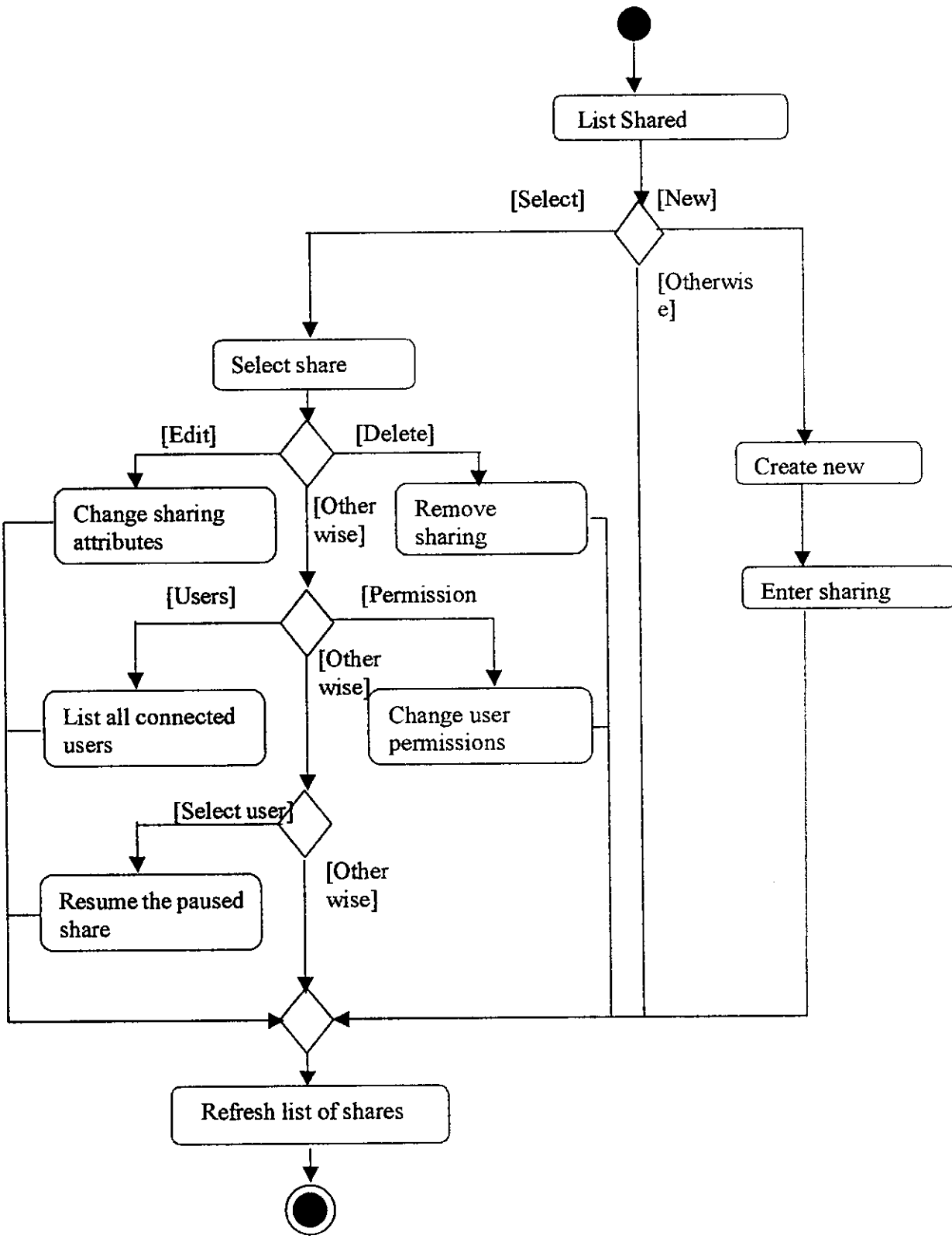
➢ NETWORK CONNECTIONS



➢ SYSTEM PERFORMANCE



➢ SHARED RESOURCES



SYSTEM IMPLEMENTATION AND TESTING

5. SYSTEM IMPLEMENTATION AND TESTING

5.1SYSTEM IMPLEMENTATION

System implementation is the stage of the project when the theoretical design is tuned into a working system. If the implementation system stage is not carefully controlled and planned, it can cause bedlam. Thus it can be considered to be the most critical stage in achieving a successful new system and in giving the users a confidence that the system will work and be effective.

The implementation stage in a system project has its own rights. It involves

- Careful planning
- Investigation of current system.
- Training of user in the newly developed system

o DOCUMENTATION

Before implementing the system two important documents should be prepared.

- User Manual
- System Manual

✓ USER MANUAL

It explains the aspects of user's requirements according to Administrator and client point of view. The User's manual consisting of both server side and client side requirement manual. The followings activity has to carry out as per user's manual:

- The user (Admin) has to guide with tools being used in the coding of project e.g., VC++ and MFC Programming as well as computer network concepts so that if there is a need to update the project according to future industry needs.
- The user (client) has to know the basic concept of computer operations so that he/she can carry out their work efficiently.

✓ SYSTEM MANUAL

It explains all the aspects on design, which is useful mainly for the further maintenance of the system i.e. user training and demonstration. After the successful completion of testing, the system is ready to use. In order to put the system into use, the following activities should be taken care of,

- Preparation of User and System documentation.
- Preparation of User training Kit.

General training is given to the user. The main aim of the training would be to furnish the user with a working knowledge of the newly developed system. The user manuals are circulated to users.

5.2 SYSTEM TESTING

System testing is the pre stage of implementation, which aims at ensuring that the system works accurately and efficiently before actual operation commences.

No program or system design is perfect; communication between the user and the designer is not always complete or clear. The result is errors and more errors. The number and nature of errors in a design depend on several factors:

- Poor communication between the user and the designer.
- The programmers' ability to generate an error code that reflects exactly.
- The incorrect system specification.

Testing is vital to the success of the system. System testing makes a logical assumption that all the parts of the system are correct; the goal will be successively achieved. Inadequate testing leads to errors.

This creates two problems:

- The time loss between the cause and the appearance of the problem.
- The effect of system errors on files and records with in the system.

A small system error can conceivably explode into a much larger problem. Effective testing early in the process translates directly into long-term cost saving system with reduced number of errors.

Another reason for system testing is its utility as a user oriented vehicle before implementation. The best program is worthless if it does not meet the user needs. The system should be tested properly to see whether it meets the users need and requirement. Testing is carried at the following states during development.

- Function Level
- Module Level

Function Level testing is carried out during individual program development to test the functionality of the entire system and the efficiency of the system, while working with large volume of data.

Individual modules were checked for system and programming errors. Whether the module is doing the intended work according to the requirement specification was also tested with help of sample data.

After the completion of the above mentioned testing, acceptance testing is carried out. Acceptance testing is running the system with live data by the actual user. Acceptance testing issues like performance, user friendliness etc is also considered.

CONCLUSION

6. CONCLUSION

The approach to this project provides us a methodology to write a single GUI remote task manager application which involves multiple application integration. The development of this project has been a great learning experience and was implemented using Software engineering principles for better performance and accuracy.

The module level testing mechanism for the project code and functionality gives accuracy to the quality of the software as each individual module will get tested during the design phase.

The project development phases were not only considered as an ordinary project development but as a research work done in the field of the core parts of the operating system (Windows NT/2000/XP) such as applications, processes, events, etc.

SCOPE FOR FUTURE DEVELOPMENT

7. SCOPE FOR FUTURE DEVELOPMENT

The user is able to remotely control a system in all aspects. A facility can be provided for system administrators to send messages to all the clients connected. This would greatly help in better communication between the system administrator and the users connected.

A facility can be provided to the system administrator to communicate with the clients using voice messages. This would greatly help the administrator in better maintenance of the network. Additional information regarding the packets flowing in the network can be provided for better understanding of the network traffic.

The facility of web browsing with much advanced features rather than existing Internet explorer, Netscape navigator, etc can also be included for better communication with the client machines for maintaining an efficient network.

BIBLIOGRAPHY

8. BIBLIOGRAPHY

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- 'MSDN (Microsoft Developers Network)', Microsoft Corporation, Visual Studio 6.0 Release.

- Reference for Comments on INTERNET, RFC No 0793 (TCP Protocol).

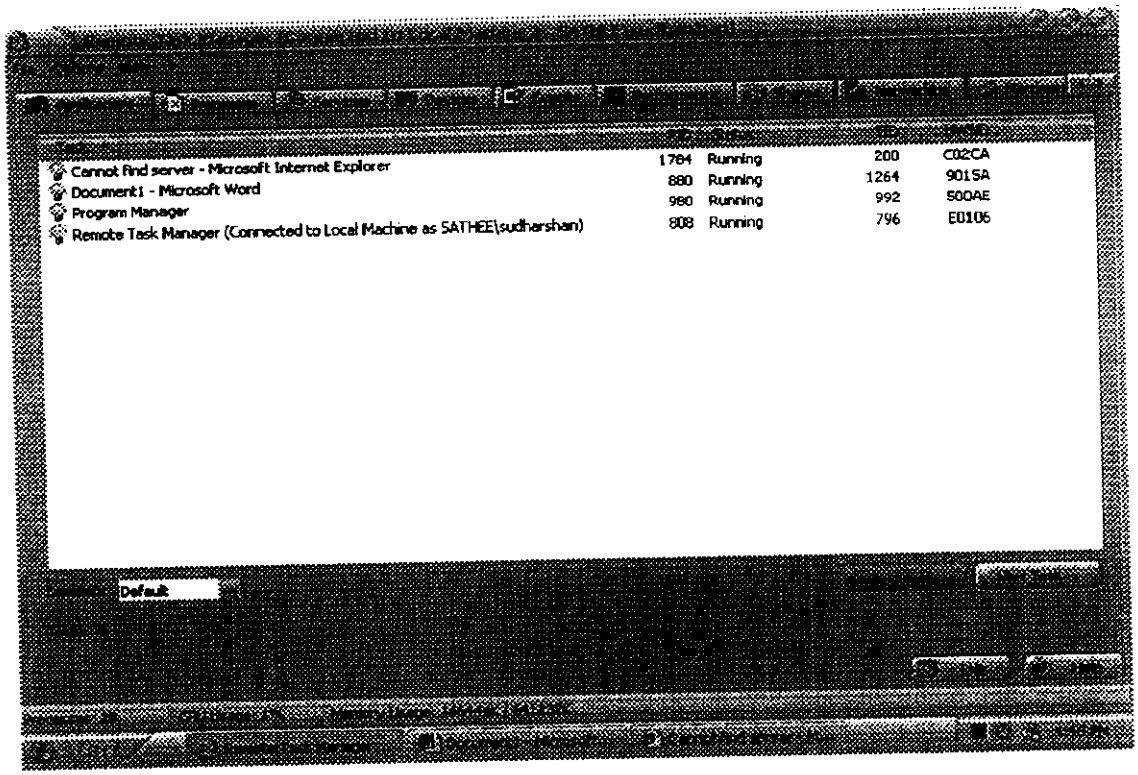
- Grady Booch, 'Object Oriented Analysis and Design', the Benjamin/Gum Publishing Company, Second Edition, 1994, topic-class diagram.

APPENDIX

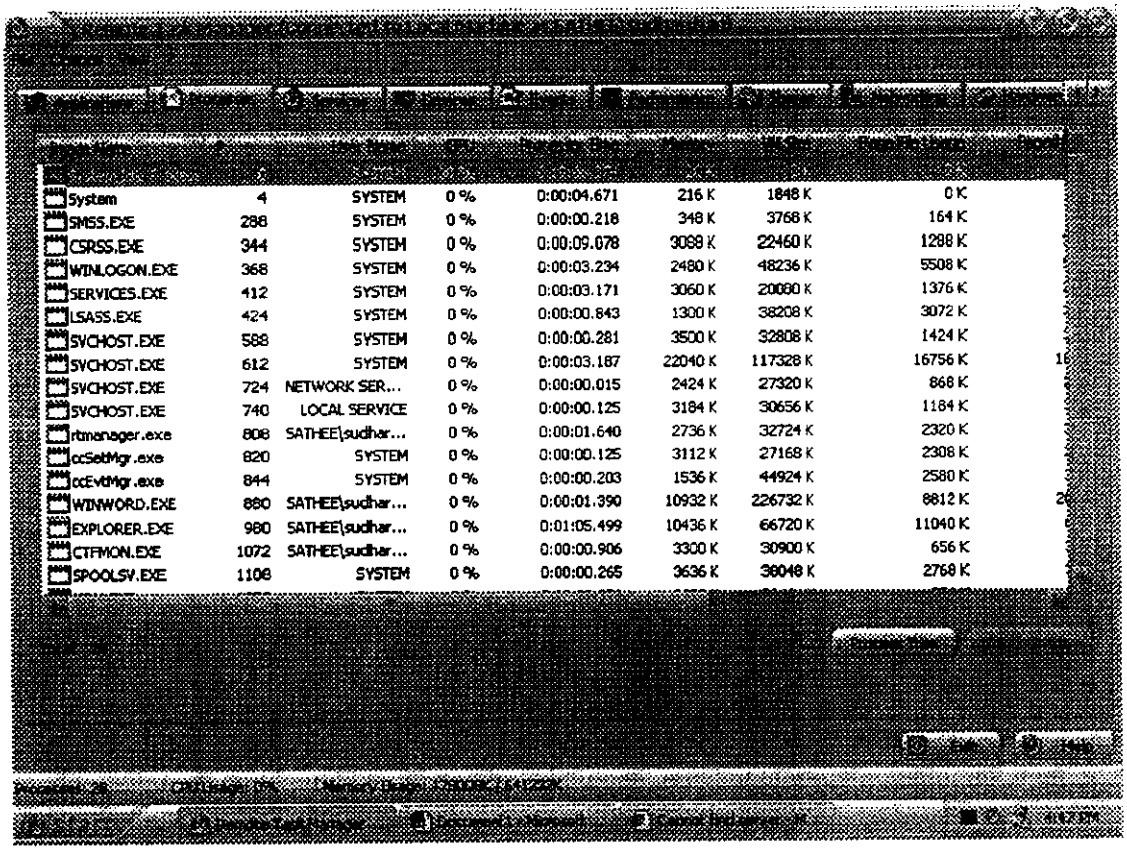
9. APPENDIX

9.1SAMPLE SCREENS

- APPLICATIONS

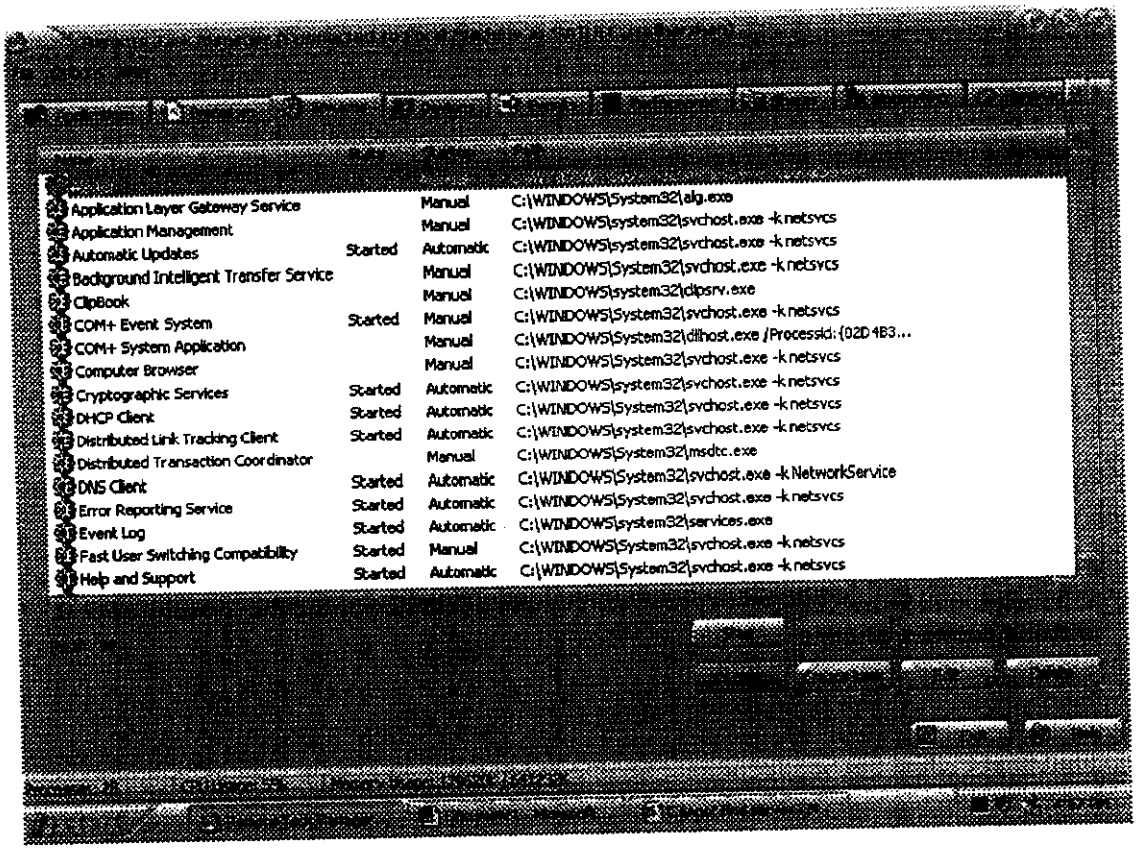


- PROCESSES

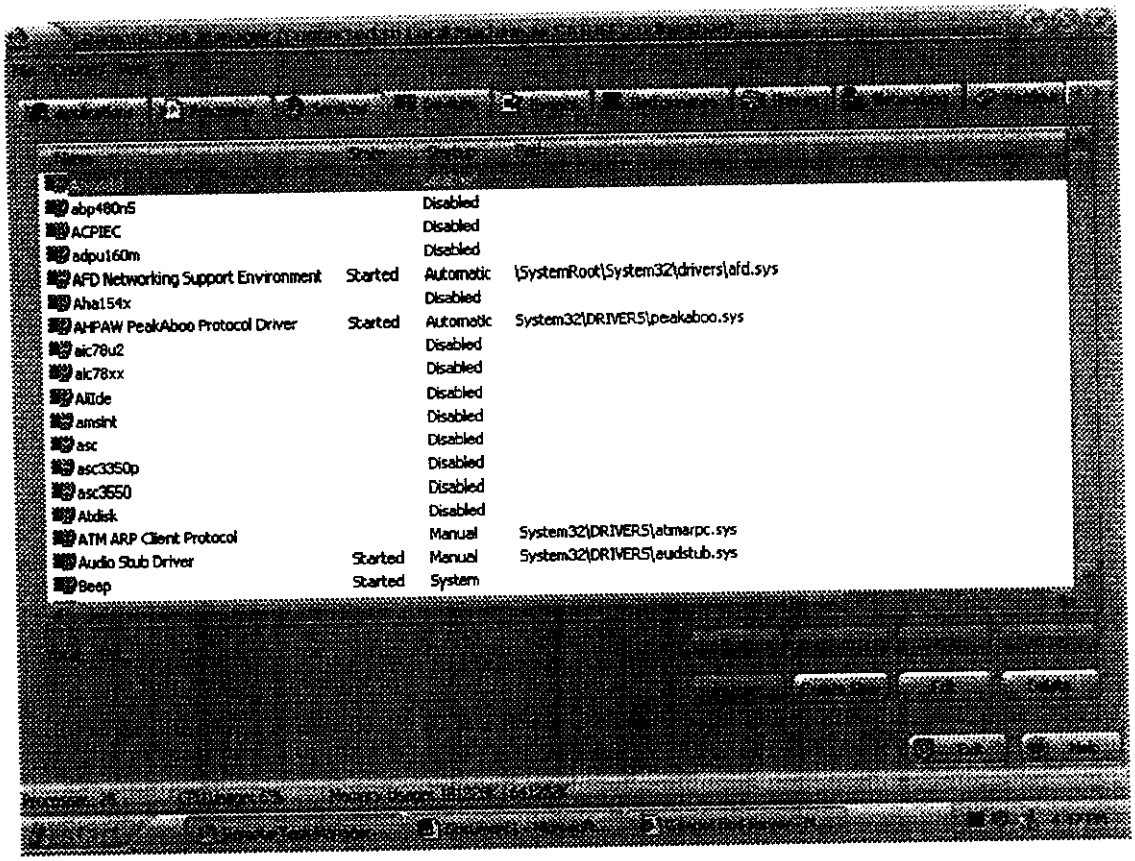


System	4	SYSTEM	0 %	0:00:04.671	216 K	1848 K	0 K
SMSS.EXE	288	SYSTEM	0 %	0:00:00.218	348 K	3768 K	164 K
CSRSS.EXE	344	SYSTEM	0 %	0:00:09.078	3088 K	22460 K	1288 K
WINLOGON.EXE	368	SYSTEM	0 %	0:00:03.234	2480 K	48236 K	5508 K
SERVICES.EXE	412	SYSTEM	0 %	0:00:03.171	3060 K	20080 K	1376 K
LSASS.EXE	424	SYSTEM	0 %	0:00:00.843	1300 K	38208 K	3072 K
SVCHOST.EXE	588	SYSTEM	0 %	0:00:00.281	3500 K	32808 K	1424 K
SVCHOST.EXE	612	SYSTEM	0 %	0:00:03.187	22040 K	117328 K	16756 K
SVCHOST.EXE	724	NETWORK SER...	0 %	0:00:00.015	2424 K	27320 K	868 K
SVCHOST.EXE	740	LOCAL SERVICE	0 %	0:00:00.125	3184 K	30656 K	1184 K
rtmanager.exe	808	SATHEE\sudhar...	0 %	0:00:01.640	2736 K	32724 K	2320 K
ccSetMgr.exe	820	SYSTEM	0 %	0:00:00.125	3112 K	27168 K	2308 K
ccEvtMgr.exe	844	SYSTEM	0 %	0:00:00.203	1536 K	44924 K	2580 K
WINWORD.EXE	880	SATHEE\sudhar...	0 %	0:00:01.390	10932 K	226732 K	8812 K
EXPLORER.EXE	980	SATHEE\sudhar...	0 %	0:01:05.499	10436 K	66720 K	11040 K
CTFMON.EXE	1072	SATHEE\sudhar...	0 %	0:00:00.906	3300 K	30900 K	656 K
SPOOLSV.EXE	1108	SYSTEM	0 %	0:00:00.265	3636 K	36048 K	2768 K

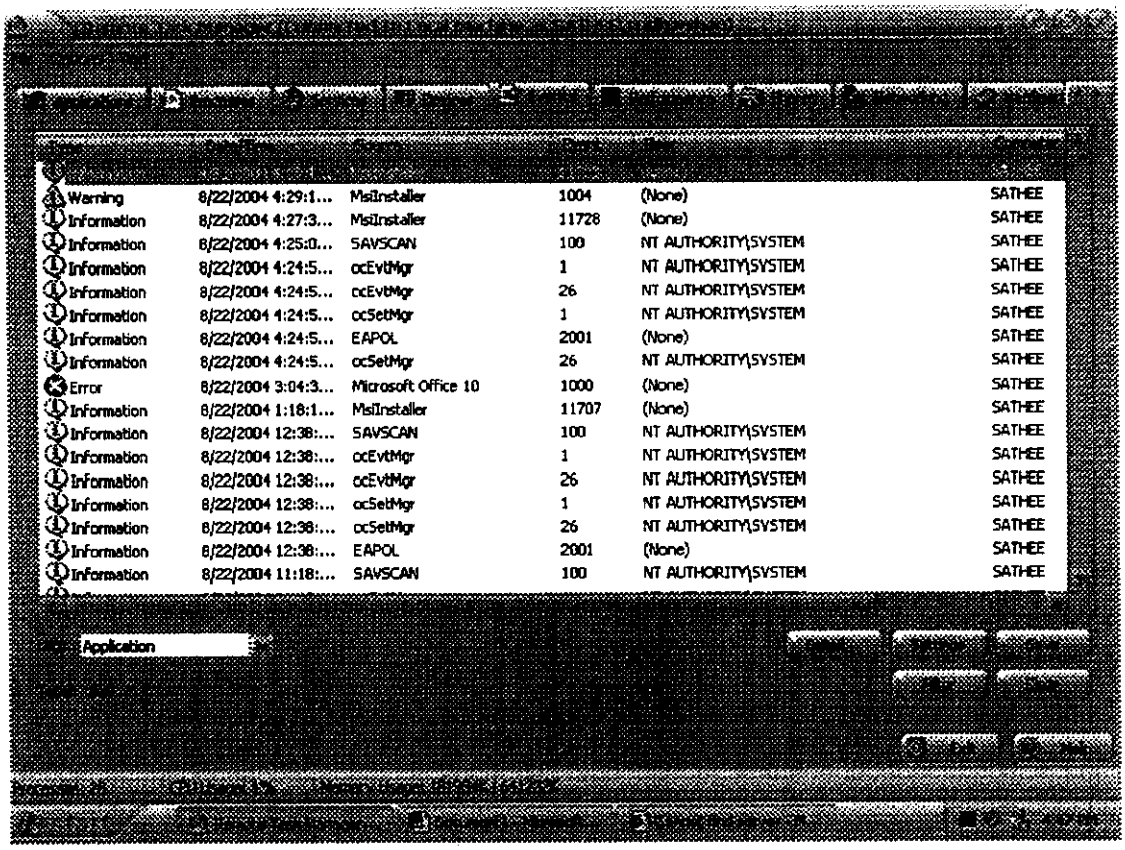
- SERVICES


Application Layer Gateway Service Manual C:\WINDOWS\System32\alg.exe
Application Management Manual C:\WINDOWS\system32\svchost.exe -k netsvcs
Automatic Updates Started Automatic C:\WINDOWS\system32\svchost.exe -k netsvcs
Background Intelligent Transfer Service Manual C:\WINDOWS\System32\svchost.exe -k netsvcs
ClipBook Manual C:\WINDOWS\system32\clipsrv.exe
COM+ Event System Started Manual C:\WINDOWS\System32\svchost.exe -k netsvcs
COM+ System Application Manual C:\WINDOWS\System32\dllhost.exe /Processid:{02D4B3...
Computer Browser Manual C:\WINDOWS\System32\svchost.exe -k netsvcs
Cryptographic Services Started Automatic C:\WINDOWS\system32\svchost.exe -k netsvcs
DHCP Client Started Automatic C:\WINDOWS\System32\svchost.exe -k netsvcs
Distributed Link Tracking Client Started Automatic C:\WINDOWS\system32\svchost.exe -k netsvcs
Distributed Transaction Coordinator Manual C:\WINDOWS\System32\msdtc.exe
DNS Client Started Automatic C:\WINDOWS\System32\svchost.exe -k NetworkService
Error Reporting Service Started Automatic C:\WINDOWS\System32\svchost.exe -k netsvcs
Event Log Started Automatic C:\WINDOWS\system32\services.exe
Fast User Switching Compatibility Started Manual C:\WINDOWS\System32\svchost.exe -k netsvcs
Help and Support Started Automatic C:\WINDOWS\System32\svchost.exe -k netsvcs

- DEVICES


abp480n5 Disabled
ACPIEC Disabled
adpu160m Disabled
AFD Networking Support Environment Started Automatic \SystemRoot\System32\drivers\afd.sys
Aha154x Disabled
AHPAW PeakAboo Protocol Driver Started Automatic System32\DRIVERS\peakaboo.sys
aic78u2 Disabled
aic78xx Disabled
AliIde Disabled
amsint Disabled
asc Disabled
asc3350p Disabled
asc3550 Disabled
Atdisk Disabled
ATM ARP Client Protocol Manual System32\DRIVERS\atmarpc.sys
Audio Stub Driver Started Manual System32\DRIVERS\audstub.sys
Beep Started System

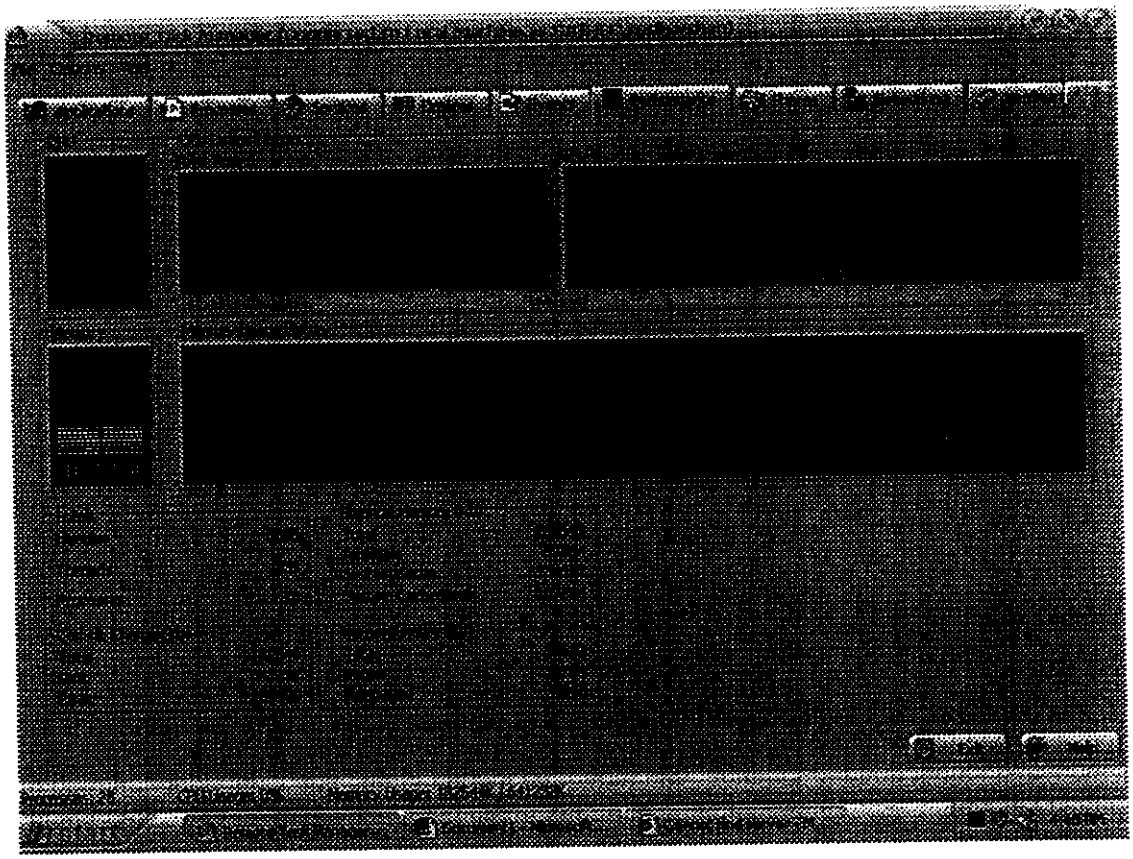
- EVENTS



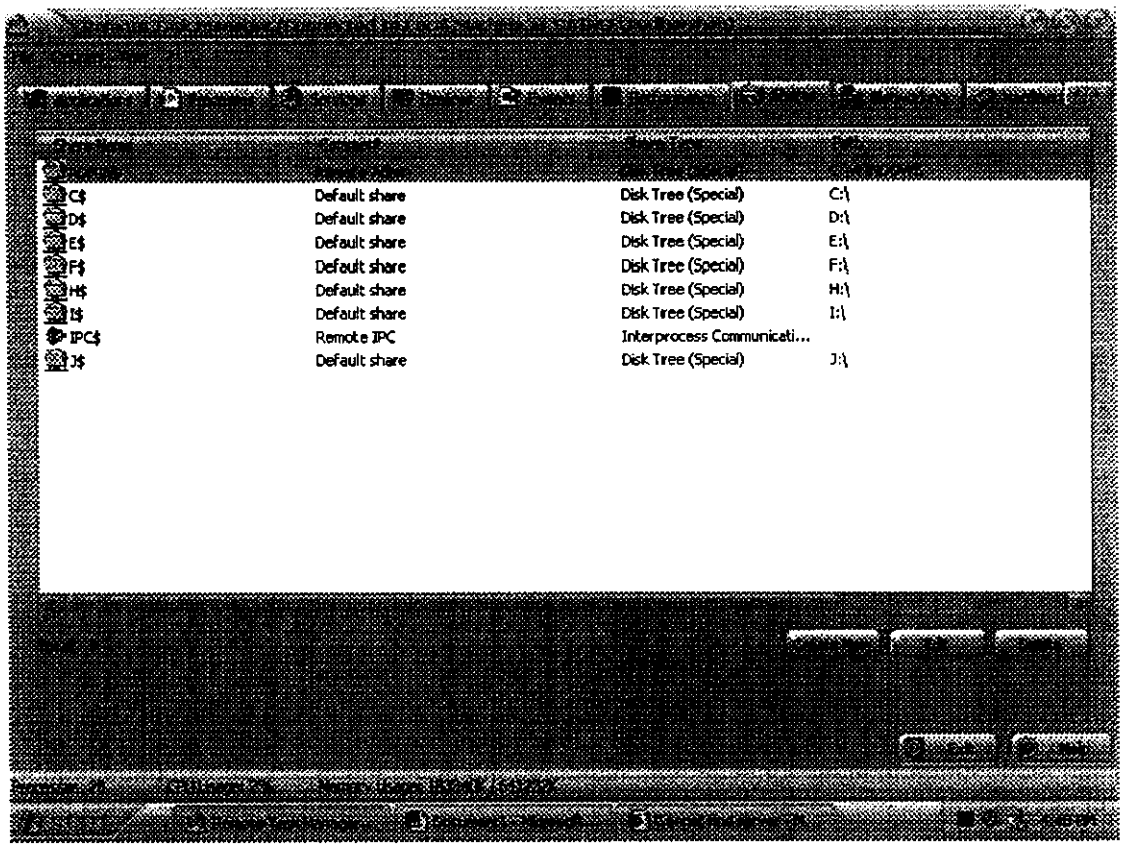
Warning	8/22/2004 4:29:1...	MsiInstaller	1004	(None)	SATHEE
Information	8/22/2004 4:27:3...	MsiInstaller	11728	(None)	SATHEE
Information	8/22/2004 4:25:0...	SAVSCAN	100	NT AUTHORITY\SYSTEM	SATHEE
Information	8/22/2004 4:24:5...	ccEvtMgr	1	NT AUTHORITY\SYSTEM	SATHEE
Information	8/22/2004 4:24:5...	ccEvtMgr	26	NT AUTHORITY\SYSTEM	SATHEE
Information	8/22/2004 4:24:5...	ccSetMgr	1	NT AUTHORITY\SYSTEM	SATHEE
Information	8/22/2004 4:24:5...	EAPOL	2001	(None)	SATHEE
Information	8/22/2004 4:24:5...	ccSetMgr	26	NT AUTHORITY\SYSTEM	SATHEE
Error	8/22/2004 3:04:3...	Microsoft Office 10	1000	(None)	SATHEE
Information	8/22/2004 1:18:1...	MsiInstaller	11707	(None)	SATHEE
Information	8/22/2004 12:38:...	SAVSCAN	100	NT AUTHORITY\SYSTEM	SATHEE
Information	8/22/2004 12:38:...	ccEvtMgr	1	NT AUTHORITY\SYSTEM	SATHEE
Information	8/22/2004 12:38:...	ccEvtMgr	26	NT AUTHORITY\SYSTEM	SATHEE
Information	8/22/2004 12:38:...	ccSetMgr	1	NT AUTHORITY\SYSTEM	SATHEE
Information	8/22/2004 12:38:...	ccSetMgr	26	NT AUTHORITY\SYSTEM	SATHEE
Information	8/22/2004 12:38:...	EAPOL	2001	(None)	SATHEE
Information	8/22/2004 11:18:...	SAVSCAN	100	NT AUTHORITY\SYSTEM	SATHEE

Application

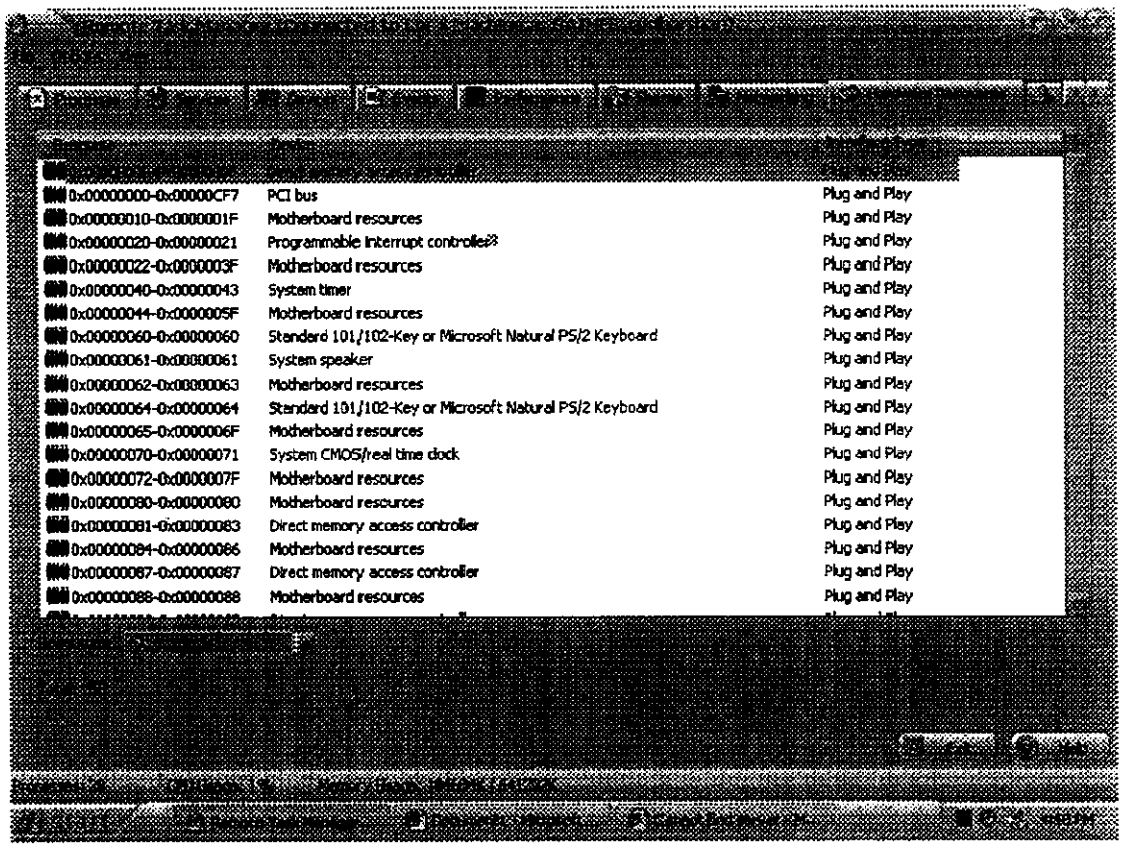
- PERFORMANCE



- SHARES

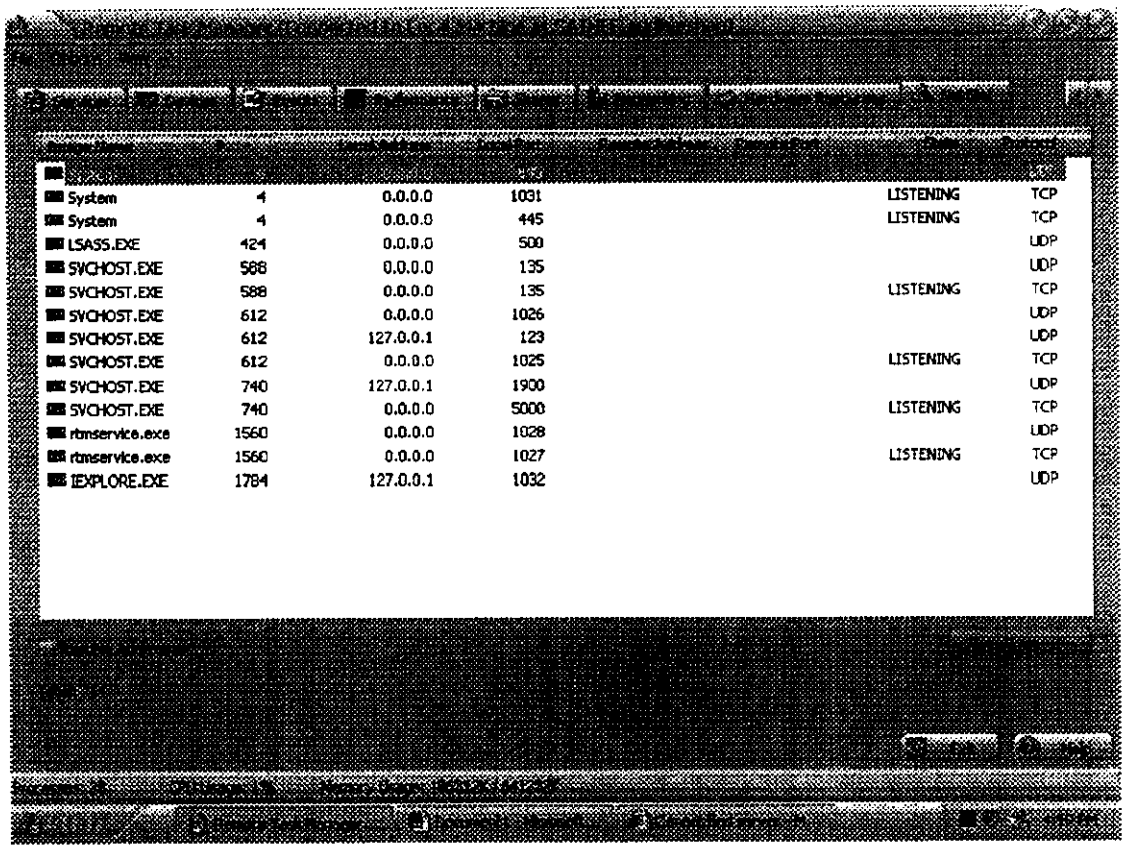

C$ Default share Disk Tree (Special) C:\
D$ Default share Disk Tree (Special) D:\
E$ Default share Disk Tree (Special) E:\
F$ Default share Disk Tree (Special) F:\
H$ Default share Disk Tree (Special) H:\
I$ Default share Disk Tree (Special) I:\
IPC$ Remote IPC Interprocess Communicati...
J$ Default share Disk Tree (Special) J:\

- HARDWARE RESOURCES



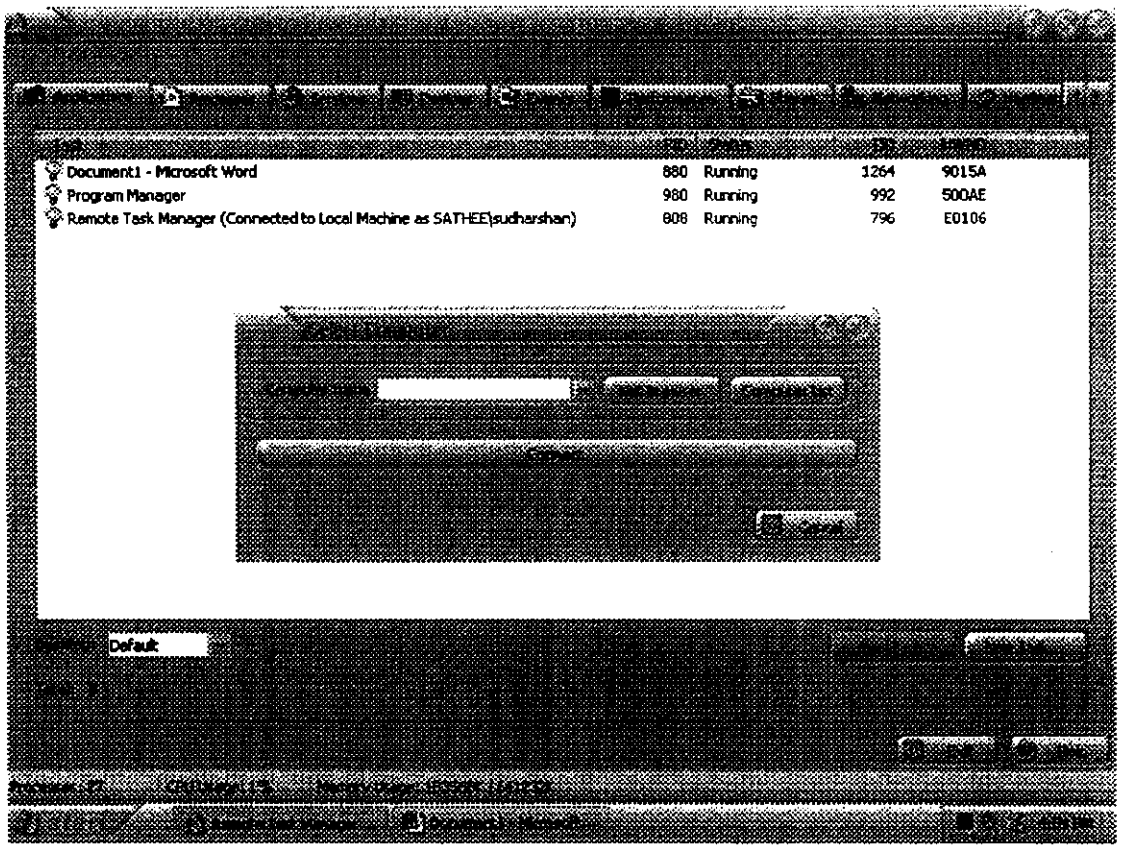
0x00000000-0x00000CF7	PCI bus	Plug and Play
0x00000010-0x0000001F	Motherboard resources	Plug and Play
0x00000020-0x00000021	Programmable interrupt controller	Plug and Play
0x00000022-0x0000003F	Motherboard resources	Plug and Play
0x00000040-0x00000043	System timer	Plug and Play
0x00000044-0x0000005F	Motherboard resources	Plug and Play
0x00000060-0x00000060	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard	Plug and Play
0x00000061-0x00000061	System speaker	Plug and Play
0x00000062-0x00000063	Motherboard resources	Plug and Play
0x00000064-0x00000064	Standard 101/102-Key or Microsoft Natural PS/2 Keyboard	Plug and Play
0x00000065-0x0000006F	Motherboard resources	Plug and Play
0x00000070-0x00000071	System CMOS/real time clock	Plug and Play
0x00000072-0x0000007F	Motherboard resources	Plug and Play
0x00000080-0x00000080	Motherboard resources	Plug and Play
0x00000081-0x00000083	Direct memory access controller	Plug and Play
0x00000084-0x00000086	Motherboard resources	Plug and Play
0x00000087-0x00000087	Direct memory access controller	Plug and Play
0x00000088-0x00000088	Motherboard resources	Plug and Play

- NET STAT

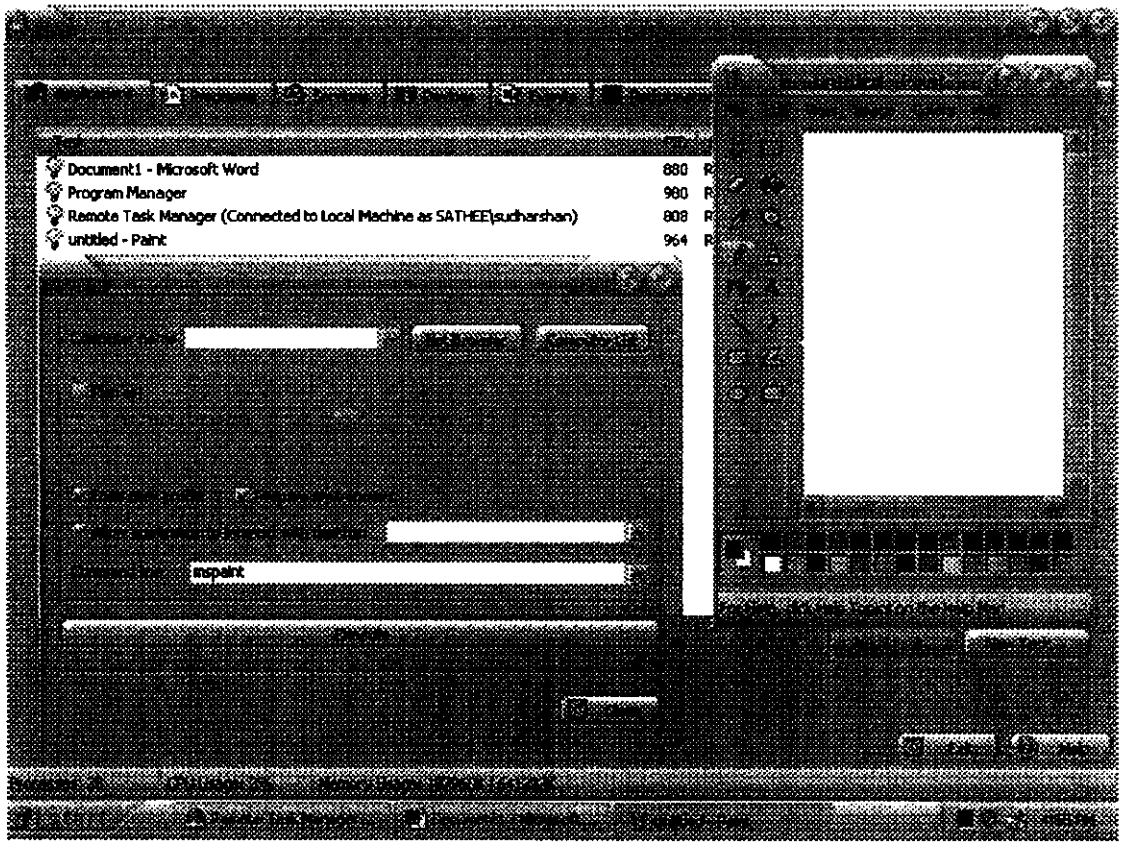


System	4	0.0.0.0	1031	LISTENING	TCP
System	4	0.0.0.0	445	LISTENING	TCP
LSASS.EXE	424	0.0.0.0	500		UDP
SVCHOST.EXE	588	0.0.0.0	135		UDP
SVCHOST.EXE	588	0.0.0.0	135	LISTENING	TCP
SVCHOST.EXE	612	0.0.0.0	1026		UDP
SVCHOST.EXE	612	127.0.0.1	123		UDP
SVCHOST.EXE	612	0.0.0.0	1025	LISTENING	TCP
SVCHOST.EXE	740	127.0.0.1	1900		UDP
SVCHOST.EXE	740	0.0.0.0	5000	LISTENING	TCP
rtmservice.exe	1560	0.0.0.0	1028		UDP
rtmservice.exe	1560	0.0.0.0	1027	LISTENING	TCP
IEXPLORE.EXE	1784	127.0.0.1	1032		UDP

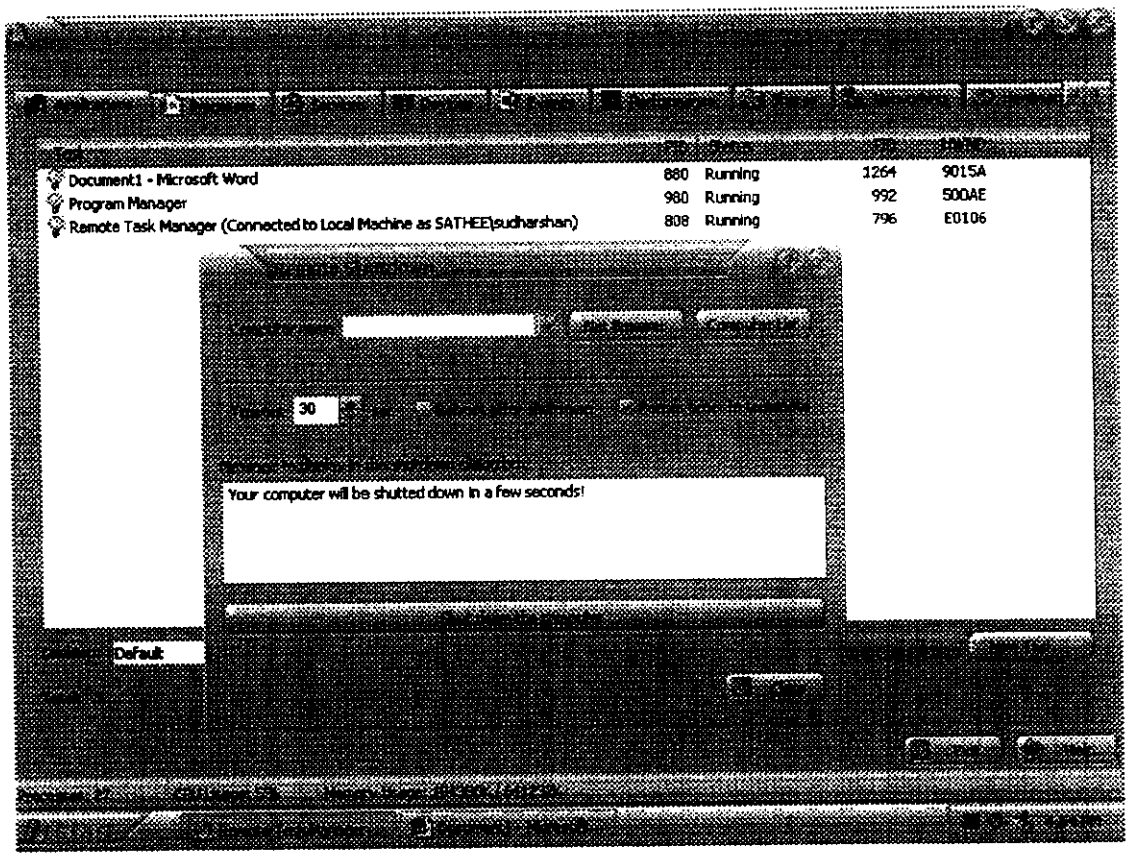
- REMOTE CONNECTION



- REMOTE EXECUTION



- REMOTE SHUTDOWN



9.2 SAMPLE CODE

- EXIT MENU

```
void CWin9xPerfMonitorDlg::OnFileExit()
{
//code to exit the application window
if (MessageBox("Do you want to terminate the WIN9X PERFORMANCE
MONITOR?","Perfomance Monitor",MB_YESNO|MB_ICONQUESTION)==IDYES)
OnCancel();
}.....
```

- NEW TASK MENU

```
void CWin9xPerfMonitorDlg::OnFileNewtask()
{
//code to run the given application
}.....
```

- PROCESS INFORMATION

```
BOOL CMyPropertyPage2::OnInitDialog ()
{
//code to display the process detailed information
//sample code for list box control
    CPropertyPage::OnInitDialog();
    m_ListCtrl.InsertColumn(0,"Process Name",0,150);
    m_ListCtrl.InsertColumn(1,"PID",0,100);
    m_ListCtrl.InsertColumn(2,"Threads",0,60);
    m_ListCtrl.InsertColumn(3,"Parent PID",0,100);
    m_ListCtrl.InsertColumn(4,"Priority",0,60);
    m_ListCtrl.InsertColumn(5,"Module ID",0,80);
    m_ListCtrl.InsertColumn(6,"Full Path",0,500);
}.....
```