

# Process Sniffing and Performance Tool

Shoyeb Mohammad Shaikh<sup>1</sup> Prateek Shetty<sup>2</sup> Shubham Pandey<sup>3</sup> Sanjay Yadav<sup>4</sup>

**Abstract**— Process Sniffing and Performance Tool (PSPT) is an application which will be used for tracing process executing on a machine. This tool is designed to ease the work of Project Managers, professors, lecturers, principles, parents etc... In the sense that now they won't have to keep watching that what there employs/students/children do when he is using the computer.

**Key words:** Sniffing, PSPT

## I. INTRODUCTION

This is client-server based tool which consists of an analyzer that contains a set of rules called protocols. This protocol defines that which all activates on the computer/network should be allowed and which should be not.

If the protocol is that during 10-11 am on every Monday c/c++ practical happens so at that interval no other applications should be allowed to execute other than Turbo C or visual studio. And if some executes other applications say any games or internet explorer or media player than this application depending upon the protocol set, will either create a log or will close down the application automatically with a notification sent to server about the event.

This project can be used in dual mode.

- 1) **Stand-alone Mode:** In stand-alone application it won't require a network to execute and analyzer will behave as client as well as a server. This mode is useful personal PCs not connected to internet.
- 2) **Client server Mode:** In this mode Pc's will be required to be connected in a network. One PC in the network will behave as a server and other Pc's will be client. During execution on the client side the end user would never come to know that he is monitored. Whereas server will get notifications about the activities going on every network.

## II. System requirements

### A. Client System Requirements:

- 1) Computer connected to the Local Area Network (LAN).
- 2) Windows XP and above.

### B. Server System Requirements:

- 1) Computer connected to the Local Area Network.
- 2) Windows NT/2000/XP.
- 3) Recommended 512MB of system memory (RAM).

## III. OBJECTIVES OF THE SOFTWARE

The Process Sniffing and Monitoring System provide an important analytical tool, enabling you to view computer activities carried out over time. The Process Sniffing and Monitoring System analyze and displays:

- a) Distribution details the time and effort spent on the various applications over selected time periods of one working day, week, month or year.
- b) The quantity of work performed by each employ over selected time periods.
- c) The applications that were accessed and used by each employ.

d) The time and effort spent on a specific application compared to the overall activities.

e) The content of the activities performed by each employ.

The Process Sniffing and Monitoring System is not a real-time system. It neither provides real-time visuals of computer screens, nor does it display online keystroke activities.

The Process Sniffing and Monitoring System will enhance your ability to attain an analytical understanding of the computer activity carried out by each employ in your office.

## IV. TARGET USERS

If this application is used in a company than this application can be used to find out the efficiency and productivity of its employs in the sense that. Every employ in an organization is allocated a work to be done along with that there is a dead line for completion of the task given to him, so this application will track that for completing a particular task how much time was utilized by an employ, this tool will monitor the applications executing at all client side and will represent the graphical representation of the application used by the employee on a periodic bases, either daily weekly, monthly, quarterly, half yearly or yearly.

This tool can be used as an antivirus also such that if process other than the defined process gets scheduled it prompts to the server and based on the rules defined and actions stated by the server it will block that application from executing. So now it's time for lecturers and project managers to relax in their cabins and cubical.

## V. PROJECT CONCEPT AND PRODUCTION

Concept has been evolved from the day I have seen employs wasting their time in doing personal work, and using the resources inappropriately which has hindered the performance of the organizations. Also during practical hours or at home students use to play with other application than they are told to.

## VI. MANUFACTURING PROCESS AND TECHNOLOGY

Project will be developed using prototype model. Wherein we will first work out on a prototype to track the feasibility and risks involved with the development.

This tool will be developed using Java:

It will heavily use the concepts like...Swings, TCP/IP, Multithreading, JDBC (Java database connectivity), JNI (Java native interface) and all Object Oriented Programming concepts.

## VII. PLANT AND MACHINERY REQUIRED

This will execute in an Intranet. So PC's connected with in a network will be required.

## VIII. MANPOWER

In all five skilled people will be required.

- a) Two Designers who will design the user interface which will be more interactive and easy to operate.

- b) One OS architect who will analyze the internals of every operating system whether windows or Linux to know how processes are scheduled and what needs to be done get information about the executing processes and what to stop them from executing.
- c) One TCP/IP Specialist who will gather all the required information about how two computer on a network executes about multithreading.
- d) One Data base architect who will create design for the database so that data is fetched with high speed and without duplication.

All the above five will be developers and after completion of the project they will test each other's components.

#### IX. MARKET DEMAND

Market basically institutions and enterprises are certainly in need of this type of application which provide then the detailed graphical view of the activities performed during the productive hours.

#### X. COST OF THE SOFTWARE

- 1) Cost of Operating System:

Cost of Windows XP Operating system is today approx. between 8-10 thousand.

- 2) Cost of Dbase Software:

Microsoft ACCESS costs 3.5 Thousand.

- 3) Cost of Software tools used while development:

2.5 Thousand.

- 4) Cost of establishing network:

2-4 Thousand.

Cost of efforts done including line of code and other investments can be considered as 20 Thousand.

So the total cost of the project can be estimated and calculated equal to 36-40 thousand.

#### XI. PROJECTED PROFITABILITY AND BREAK EVEN ANALYSIS

Enterprises will certainly gain improvement in the productivity of their employs.

Colleges can now give other task to its lectures and lab assistants because during practical monitoring will be done by this tool.

#### XII. CONCLUSION

Project is under requirement gathering phase once the requirements are freezed will start with design and implementation.

#### ACKNOWLEDGMENT

This research was supported/partially supported by Farooq Ahmed Sir. We thank our colleagues from who provided insight and expertise that greatly assisted the research, although they may not agree with all of the interpretations/conclusions of this paper. We thank all of my co-authors for assistance with technique and for comments that greatly improved the manuscript. Our college, "Thakur Polytechnic", has also supported for the same.

#### REFERENCES

- [1] Herbert Schildt., "The Complete reference Java2", Seventh edition, by The McGraw-Hill, 2007.

- [2] Elliotte Rusty Harold's., "Java Secrets", Second edition, JavaZone , 2005.
- [3] Ryan Splanger, "Packet sniffing detection with Anti sniff", University of Wisconsin-Whitewater, May 2003.
- [4] Tom King, "Packet sniffing in a switched environment", SANS Institute, GESC practical V1.4, option 1, Aug 4th 2002, updated june/july 2006.
- [5] Elliotte Rusty Harold's ., "Java Secrets"., 2004.
- [6] Glenn L. Vanderburg., "Tricks of the Java Programming Gurus", 2005.