

# Screen Monitoring using Windows Service

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**Abstract** - The current problem is parents give their system to their child, and they move on to their busy schedule. Even they don't have any idea of what their child is doing in system. To solve this problem, Screen Monitoring System comes into picture, It allows to continuously monitor the each and every action being taken by anyone on a desktop. Here we are designing a windows service that can be used to track child activities that means it monitor the screen whether the child is safe with the content of screen or not. Service monitor the screen and take screenshot and store it in files

**Key Words:** Windows service, Windows service controll manager, Screen monitoring, Active directory service, Pre fetch and Super fetch services.

## 1. INTRODUCTION

The current problem is parents give their system to their child, and they move on to their busy schedule. Even they don't have any idea of what their child is doing in system. To solve this problem, Screen Monitoring System comes into picture, It allows to continuously monitor the each and every action being taken by anyone on a desktop. Here we are designing a windows service that can be used to track child activities that means it monitor the screen whether the child is safe with the content of screen or not. Windows Services are applications that start when the computer is booted and run in the background until it is shut down. Unlike regular software that is launched by the end user and only runs when the user is logged on, Windows Services can start without user intervention and may continue to run long after the user has logged off

## 2. WINDOWS SERVICE

Windows Services are a core component of the Microsoft Windows operating system and enable the creation and management of long-running processes. Unlike regular software that is launched by the end user and only runs when the user is logged on, Windows Services can start without user intervention and may continue to run long after the user has logged off. The services run in the background and will usually kick in when the machine is booted. Developers can create Services by creating applications that are installed as a Service, an option ideal for use on servers when long-running functionality is needed without interference with other users on the same system.

## Differences between Windows Services and Regular Applications

- **Launch Mechanism** – A regular application is manually launched by the end user from the desktop or Start Menu. Examples include web browsers, document editing software and PDF readers. Windows Services start when the machine is switched on. Note however that regular applications can be added to the Startup folder in the Start Menu in which case they would start automatically once the operating system startup is complete.
- **User Interface** – Unlike regular applications, Windows Services do not have a user interface; they run in the background and the user does not directly interact with them. A Windows Service does not stop when a user logs off the computer; a regular application will.
- **Multiple Instances** – Only one instance of a Windows Service runs on a device. Regular applications can allow multiple copies if several users are logged into the same machine.
- **Administrator Rights** – Windows Services usually run under administrative privileges even when a non-administrator user is logged in and using the computer. The average Windows Service has more control over the machine compared to a regular application.

**Windows service controll manager:** Windows Services are managed via the Services Control Manager panel. The panel shows a list of services and for each, name, description, status (running, stopped or paused) and the type of service. Double clicking on a service reveals its properties in greater detail. You can stop, pause, start, delay start, or resume each service as appropriate

Windows Services broadly fall into three categories depending on the actions and applications they control: Local Services, Network Services and System. Third party applications such as antivirus software may also install their own services.

Services can be deleted by a user with administrative privileges, but as doing so can render the operating system unstable, it should be done only when necessary and with caution.

Examples of Windows Services

- **Active Directory Service** – Active Directory is a service Microsoft developed for Windows networks. It is included by default in most Microsoft Windows Server systems. Active Directory oversees centralized domain management and identity-related functions.
- **Prefetch and Superfetch Service** – Speeds up operating system and application startup by caching to RAM frequently used files, libraries and application components. It does this by monitoring application usage and behavior.

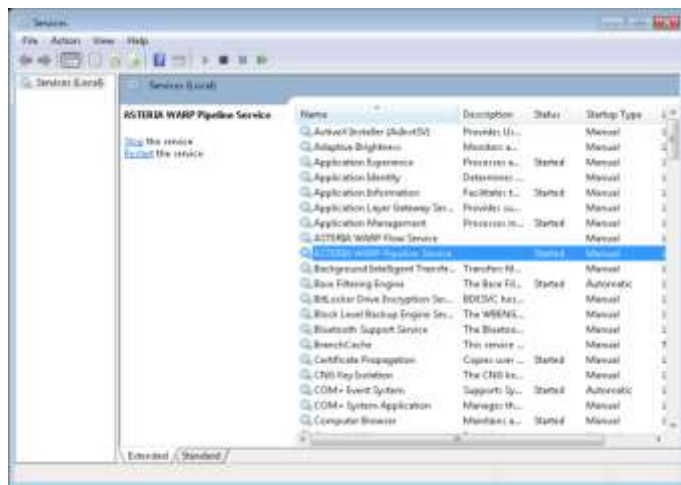


Fig 2.1 Windows service control manager

3. SCREEN MONITORING

A screenshot, also called screen capture or Screen grab, is a digital image of what should be visible on a monitor, television, or other visual output devices. A common screenshot is created by the operating system or software running on the device, A screenshot or screen capture may also be created by taking a photo of the screen



Fig 3.1 Captured screens

4. APPLICATIONS

4.1 TRACKING CHILD ACTIVITIES



Fig 4.1 Tracking child activities

Service can be used to track child activities in system. What Actually the child is surfing in internet and whether he is safe with the content of Screen or not.

Background running service will take screen shot depending on timer and stores in file that is only accesible by admin.

If the system gets connected to internet than it will send it through email

4.2 TRACK EMPLOYEE ACTIVITIES IN COMPANY



Fig 4.2.1 Tracking employee activities

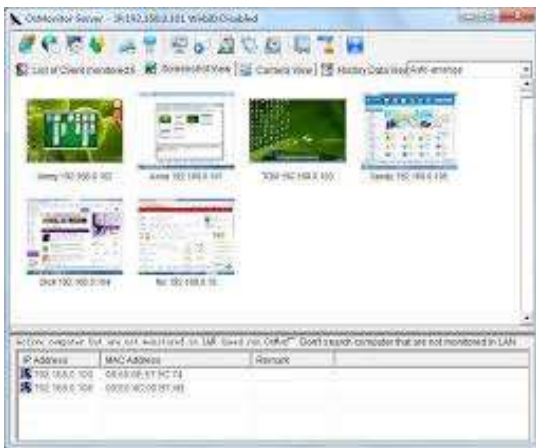


Fig 4.2.2 Captured employee activities

**Employee monitoring** allows a business to track employee activities and monitor worker engagement with workplace related tasks. A business using employee monitoring on a computer can measure productivity, track attendance, ensure security and collect proof of hours worked.

Using service we can track employee activities such as what site he is using, whether he is on his work or just time passing which will affect on productivity of the company

### 4.3 TRACK STUDENT ACTIVITY IN SYSTEM BASED EXAMS

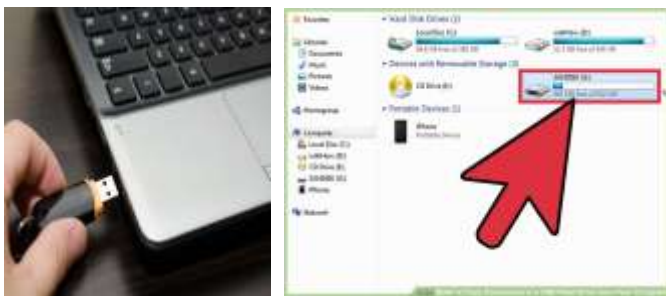


Fig 4.3 Track student activities in system based exams

Our service can be used to monitor the student activities in system based exams. If the student is copying from referring some sites or using pendrive he can be easily caught

### 5. CONCLUSION

In this paper we presented what is windows service, what is screen monitoring and how we can utilize windows service to accomplish screen monitoring, which has plenty of applications such as monitoring child activities, monitoring employee activities in company and

many more. In future this concept can be implemented in wide range of areas

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