Project - SRS

Topic: - Performance Monitor

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Introduction

1.1 Purpose

The purpose of this document is to specify the software requirements for a Performance Monitor application. The application is designed to monitor and display performance information related to CPU, memory usage, and Wi-Fi speed.

1.2 Scope

The Performance Monitor application will provide real-time monitoring of the system's CPU usage, memory usage, and Wi-Fi speed. It will allow users to view and analyze performance data to identify any performance bottlenecks or issues.

1.3 Definitions, Acronyms, and Abbreviations

CPU: Central Processing Unit

GHz: Gigahertz

RAM: Random Access Memory

Kbps: Kilobits per second

SSID: Service Set Identifier

1.4 References

Windows API Documentation

WLANAPI Library Documentation

PDH Library Documentation

Overall Description

2.1 Product Perspective

The Performance Monitor application is a standalone software that runs on the Windows operating system. It interacts with the system's hardware components and APIs to gather performance data.

2.2 Product Features

The main features of the Performance Monitor application include:

CPU Monitoring: Displays CPU speed, uptime, and usage percentage.

Memory Usage Monitoring: Shows total memory, available memory, used memory, and committed memory.

Wi-Fi Speed Monitoring: Measures and displays Wi-Fi send and receive speeds in kilobits per second.

2.3 User Classes and Characteristics

The Performance Monitor application targets users who want to monitor and analyze the performance of their computer system. Users should have basic knowledge of computer hardware and performance metrics.

2.4 Operating Environment

Windows operating system (compatible with Windows Vista and later versions)

Sufficient system resources to run the application

2.5 Design and Implementation Constraints

The application is designed to run on Windows platforms only.

Access to system APIs and hardware components is required for performance data gathering.

2.6 User Documentation

The application will include user documentation to guide users on how to install, configure, and use the Performance Monitor.

System Features

3.1 CPU Monitoring

The application should provide the following CPU-related information:

CPU speed in GHz

System uptime in days, hours, minutes, and seconds

CPU usage percentage

3.2 Memory Usage Monitoring

The application should display the following memory usage information:

Total memory in gigabytes (GB)

Available memory in GB

Used memory in GB

Committed memory in GB

3.3 Wi-Fi Speed Monitoring

The application should measure and show the following Wi-Fi speed information:

Wi-Fi send speed in kilobits per second (Kbps)

Wi-Fi receive speed in Kbps