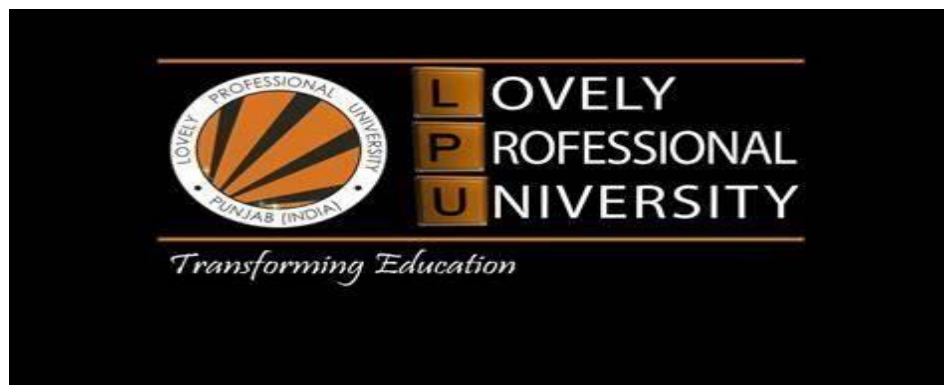


**Final    =    Submission Report For Open-Source**

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**Program:**

**B.Tech CSE**

**School**

**School Of Computer Science and Engineering**

**Submitted to:    Mr. Rajeshwar Sharma**

**LOVELY PROFESSIONAL UNIVERSITY**

## Objective of the Project:

Using desired Open Source Software display an overview of all the hardware and operating system detail; also do live monitoring to show the temperature and current usage of various hardware components.

Link of the Project : <https://github.com/Mrityunjaydeepak/Open-Source-CA-3>

## Description of the project:

### 1. Open-source Software:

Open-source software is computer software that is released under a license in which the copyright holder grants users the rights to use, study, change, and distribute the software and its source code to anyone and for any purpose.

### 2. Sidebar Open-source Software

An open source software sidebar for Windows desktop that displays hardware diagnostic information.

#### Features

- Monitors CPU, RAM, GPU, network, and logical drives.
- Create graphs for all metrics.
- Allows for lots of customization.
- Allows alerts for various values.
- Allows binding hotkeys.
- Supports monitors of all DPI types.
- Has a clock at the top.

#### License

- GNU GENERAL PUBLIC LICENSE

## **Snapshots of the Software working:**

## System CPU Performance



### Time

10:24:00 PM

April 11



### CPU

AMD Ryzen 7 4800H with Radeon Graphics

Clock: 4,292 MHz

Voltage: 0.77 V

Temp: 55.88 C

Load: 5.71%

Core 0: 10.94%

Core 1: 5.22%

Core 2: 9.4%

Core 3: 0.95%

Core 4: 5.38%

Core 5: 1.53%

Core 6: 4.21%

Core 7: 1.84%

Core 8: 21.12%

Core 9: 0%

Core 10: 6.06%

Core 11: 0%

Core 12: 4.95%

Core 13: 0.79%

Core 14: 6.8%

Core 15: 13.24%



### RAM

Load: 39.81%

Used: 6.14 GB

Free: 9.28 GB



### GPU

AMD Radeon(TM) Graphics

Core: 400 MHz

VRAM: 1,600 MHz

Core: 11%

Voltage: 1.39 V

Temp: 45 C

NVIDIA GeForce GTX 1650 Ti

Core: 300 MHz

VRAM: 405 MHz

Core: 0%

VRAM: 3.59%

Temp: 40 C

## System DRIVE PERFORMANCE



### Drives

C:



Load: 60.73%

Used: 144.12 GB

Free: 93.18 GB

Read: 0 kB/s

Write: 0 kB/s

D:



Load: 51.9%

Used: 280.71 GB

Free: 260.17 GB

Read: 0 kB/s

Write: 0 kB/s

E:



Load: 11.09%

Used: 43.33 GB

Free: 347.29 GB

Read: 0 kB/s

Write: 0 kB/s



### Network

Realtek 8822CE Wireless LAN  
802.11ac PCI-E NIC

IP: 192.168.43.141

In: 1.97 kbps

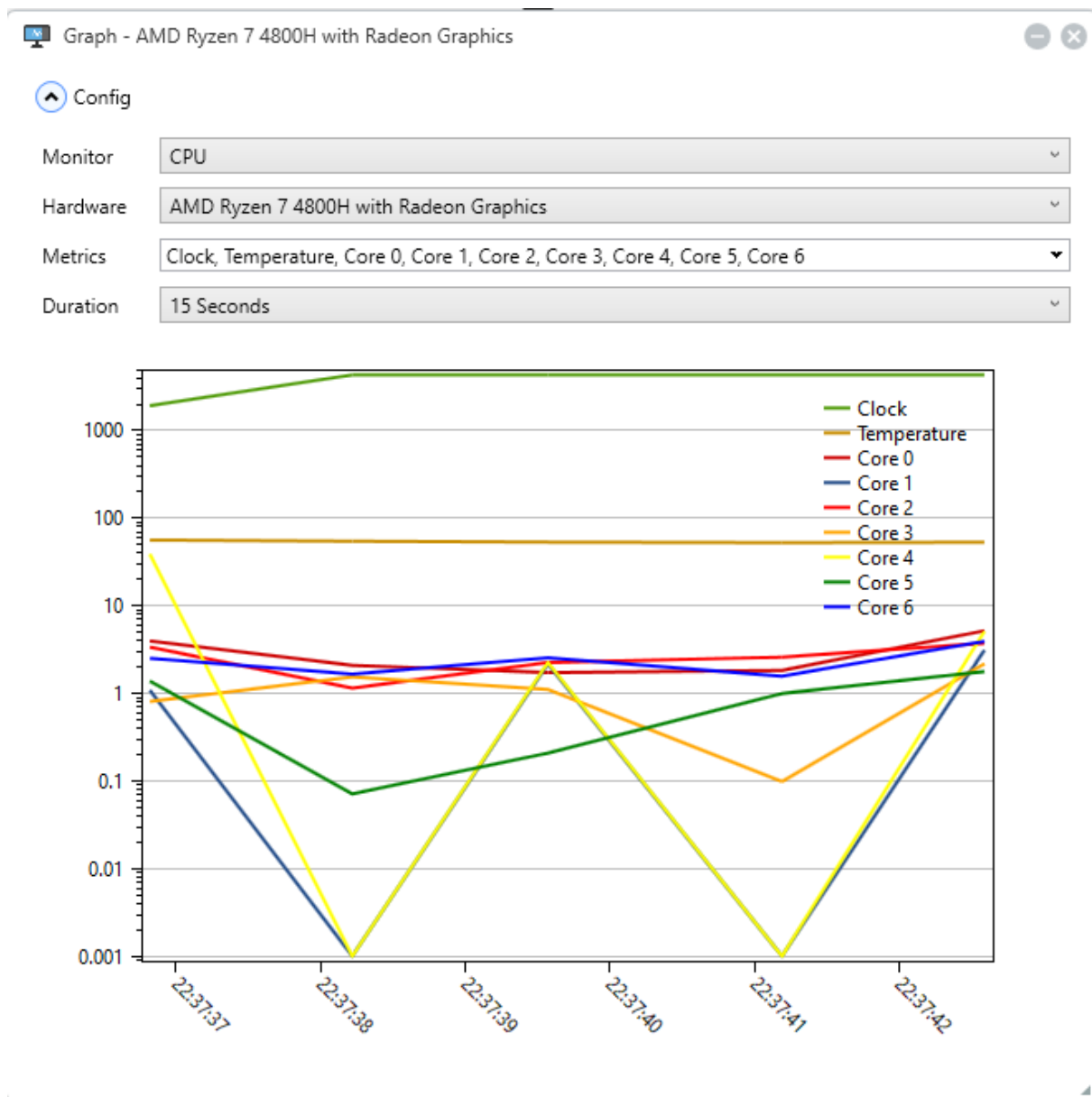
Out: 1.8 kbps

Realtek PCIe GbE Family  
Controller

IP: 169.254.0.185

In: 0 kbps

Out: 0 kbps



**Graph of the System hardware Resources with real time monitoring**

## Analysis of Project:

- Introduction Open-Source Hardware monitoring Software can be used in various industries and organizations to monitor and manage the performance and health of hardware components such as servers, network devices, storage devices, and data centres. The purpose of this analysis report is to provide an overview of hardware monitoring systems, including their benefits, features, and challenges.
- Benefits: it offers several benefits to organizations, including:
  - a) **Improved Reliability:** Hardware monitoring Software constantly monitor the performance and health of hardware components, allowing organizations to detect and resolve hardware issues proactively before they result in system failures or downtime. This helps improve the reliability and availability of critical IT infrastructure, leading to increased productivity and customer satisfaction.
  - b) **Enhanced Performance:** Hardware monitoring Software provide real-time insights into the performance of hardware components, enabling organizations to identify and resolve performance bottlenecks, optimize resource utilization, and ensure optimal performance of IT infrastructure.
- c) **Simplified Management:** Hardware monitoring Software centralize the monitoring and management of hardware components, providing a single dashboard or interface to monitor and configure various hardware devices. This simplifies the management process, reduces manual effort, and minimizes the risk of human errors.
- d) **Cost Savings:** Hardware monitoring Software help organizations identify and resolve hardware issues proactively, reducing the need for costly emergency repairs, downtime, and data loss. By optimizing resource utilization and performance, organizations can also achieve cost savings through improved energy efficiency and reduced hardware maintenance costs.

## References

<https://github.com/ArcadeRenegade/SidebarDiagnostics>