

#1.

SpectrumSetup-91 #4

- Name (SSID): SpectrumSetup-91
- Security standard: WPA2 (PSK-CCMP)
- WLAN protocol: 802.11 (a, n, ac, ax)
- Channel: 36+40+44+48
- Frequency: 5GHz
- BSSID: 4
- Signal strength: -36
- Vendor: Askey Computer Corp.

Hey Neighbor #7

- Name (SSID): Hey Neighbor
- Security standard: WPA2 (PSK-CCMP)
- WLAN protocol: 802.11 (b, g, n)
- Channel: 1
- Frequency: 2.4GHz
- BSSID: 4
- Signal strength: -89
- Vendor- Google. Inc.

FBI Surveillance Van #8

- Name (SSID): FBI Surveillance Van
- Security standard: WPA2 (PSK-CCMP)
- WLAN protocol: 802.11 (b, g, n)
- Channel: 10
- Frequency: 2.4GHz
- BSSID: 4
- Signal strength: -81
- Vendor- TP-Link Technologies CO.LTD.

It hurts when IP #11

- Name (SSID): It hurts when IP
- Security standard: WPA2 (PSK-CCMP)
- WLAN protocol: 802.11 (a, n, ac, ax)
- Channel: 149+153+157...
- Frequency: 5GHz
- BSSID: 3
- Signal strength: -84
- Vendor- Google. Inc.

BinBallin #12

- Name (SSID): BinBallin
- Security standard: WPA2 (PSK-CCMP)

- WLAN protocol: 802.11 (a, n, ac, ax)
- Channel: 149+153+157...
- Frequency: 5GHz
- BSSID: 2
- Signal strength: -81
- Vendor- Google. Inc.

3804burtdrive #16

- Name (SSID): 3804burtdrive
- Security standard: WPA2 (PSK-CCMP)
- WLAN protocol: 802.11 (b, g, n)
- Channel:11
- Frequency: 2.4 GHz
- BSSID: 1
- Signal strength: -81
- Vendor- Google. Inc.

2) How many different networks do you see?

In total, I see about 9 different networks. Some networks are repeated on the list multiple times but have different MAC addresses.

3) How can this program be useful to a home user? Make sure you put some thought into this question and use the information you learned in class (your response should be more than a 1-2 sentence answer).

Acrylic WiFi Suite can be very useful for a home user in various practical ways. Firstly, it helps in optimizing WiFi network performance. By identifying the channels used by nearby networks, a user can select a less crowded channel for their own network, reducing interference and improving speed and reliability.

Secondly, it's beneficial for enhancing security. By displaying the security protocols of neighboring networks, it educates the user about different security standards and encourages them to choose robust security settings for their own network, like WPA3, which is more secure than WEP or WPA2.

Thirdly, the tool provides valuable insights into network health. For instance, by showing signal strengths and frequencies, it helps users position their routers and devices strategically for better coverage. Weak signal areas, or 'dead zones,' can be identified and addressed by adjusting router placement or adding extenders.

4) How can this program be useful to a network administrator? Make sure you put some thought into this question and use the information you learned in class (your response should be more than a 1-2 sentence answer).

Acrylic WiFi Suite is a valuable tool for network administrators as it aids in comprehensive network management and optimization. By providing detailed information on network usage, such as MAC addresses, security protocols, and channel distribution, it enables administrators to monitor network activity and identify unauthorized access, enhancing security. The visibility of all nearby networks and their characteristics helps in managing channel congestion, which is crucial in environments with multiple overlapping networks. This leads to better network performance by minimizing interference and optimizing bandwidth allocation. Furthermore, by revealing signal strength across different areas, it assists in effective placement of routers and access points, ensuring optimal coverage and network efficiency. This level of detailed insight is essential for maintaining a robust, secure, and efficient network in any organization.

5) How might this program be useful to a hacker with malicious intent? Make sure you put some thought into this question and use information you've learned this semester (i.e. your response should be more than a 1-2 sentence answer).

While intended for legitimate network management and optimization, Acrylic Suite could also be misused by a hacker with malicious intent. Its ability to scan and reveal detailed information about nearby wireless networks, including MAC addresses, channels, and security protocols, can provide a hacker with critical insights into potential vulnerabilities.

For example, a hacker could use the tool to identify networks using weaker security protocols like WEP, which are more susceptible to breaches. By knowing which channels and frequencies are most congested, they might strategically execute a denial-of-service attack to disrupt network operations. The program's ability to detect all devices connected to a network, through MAC addresses, can also be exploited for network mapping, aiding in targeted attacks or unauthorized access.

Furthermore, the visibility into network configurations and vendor information can help hackers tailor their attack strategies to specific hardware or software vulnerabilities. In essence, while tools like Acrylic WiFi Suite are designed for network analysis and troubleshooting, in the wrong hands, they can become powerful instruments for reconnaissance and exploitation in cybersecurity attacks.

6) Which program did you use to access this information?

I used Acrylic Suite as my Wi-Fi stumbler program during this assignment.