Hi Demian,

Obfuscation is a powerful method that is extensively utilised by hackers and security teams worldwide. They utilise obfuscation for a variety of reasons, but the final goal is the same — to render the source code unreadable, difficult to grasp, and interpret. Obfuscation occurs in both high-level and assembly-level programming languages.

Obfuscation is a technique used by security teams to safeguard intellectual property; it is used to obscure the source code of sophisticated algorithms in order to conceal implementation details. More significantly, obfuscation protects against attacks that might occur as a result of reverse engineering a programme and identifying flaws.

Let us examine a few obfuscation techniques here: variable renaming, code flow obfuscation, and address obfuscation.

* Obfuscation at a higher level may take the form of variable renaming to conceal their real function or string encryption to render all communications unintelligible (strings then have to be decrypted during runtime).
* Code flow obfuscation is an even more powerful method of scrambling the source code. This approach entails adding superfluous case switches or reconstructing the structure and conditions of nested if statements in an atypical manner.
* Lower-level obfuscation might involve address obfuscation. This approach assures that a program's code and data addresses are unique for each execution. This strategy eliminates attacks in non-memory safe programming languages.

There are many obfuscation techniques and all of them can be used for good as well as for bad purposes.

**References**

* LLC, L. (2020). What Is Obfuscation In Security And What Types of Obfuscation Are There? LIFARS, a SecurityScorecard company. Available from: https://lifars.com/2020/11/what-is-obfuscation-in-security/ [Accessed 22 Apr. 2022].
* HYPR. (n.d.). Obfuscation | Security Encyclopedia. Available from: https://www.hypr.com/obfuscation/ [Accessed 22 Apr. 2022].
* December 13 and 2021 (2021). What is Code Obfuscation? Security Boulevard. Available from: https://securityboulevard.com/2021/12/what-is-code-obfuscation/ [Accessed 22 Apr. 2022].