0. Introduction

This is The Standard. A collection of decades of experience in the engineering industry. I authored it to help you navigate the vast ocean of knowledge. The Standard is not perfect and never will be, and it reflects the ongoing evolution of the engineering industry. While one person may write it, it is the collection of thoughts from hundreds of engineers I've had the honor to interact with and learn from throughout my life.

The Standard holds hundreds of years of collective experiences from many different engineers. As I have traveled the world and worked in various industries, I've had the chance to work with many kinds of engineers - some of them were mad scientists who would fixate on minor details of every routine. Others have been business engineers who cared more about the results than the means to get to these results. In addition to others, I've learned from them what makes a simple engineering guide that can light the way for all other engineers to be inspired by it and follow it. Therefore, I have made this Standard, hoping it will be a compass for engineers to find the best way to engineer solutions that will hopefully change the world.

This Standard requests engineers worldwide to read through it and extract their experiences and knowledge to enrich an engineering Standard worthy of the software industry. Today, we know the origins of man and all the animals on earth. We know how hot boiling water is and how long a yard is. Our ships' masters know the precise measurements of latitude and longitude. Yet, we have neither a chart nor a compass to guide us through the vast sea of code. The time has come to accord our great craft with the same dignity and respect as the other standards defined by science.

The Standard has immense value for those still finding their way in this industry. Or even those who have lost their way. And the Standard can guide them towards a better future. More importantly, the Standard is written for everyone equally to inspire every engineer or engineer-to-be to look forward to focusing on what matters the most about engineering- its purpose, not its technicalities. When engineers have any form of Standard, I have observed that they start focusing more on what can be accomplished in our world today. When engineers follow some form of Standard, their energy and focus become more on what to achieve rather than how. I collected and then authored this Standard, hoping it will eliminate confusion and enable engineers to focus on what matters most--use technology for higher purposes and establish its equivalent goals. The art and science of designing software have come a long way and have proven to be one of the most powerful tools a person could have today. It deserves a proper introduction, and how we educate youth about it matters.

Essentially, The Standard is my interpretation of SOLID principles and many other practices and patterns that continue to enrich our designs and development to achieve solid systems. The Standard aims to help every engineer find guidance in their day-to-day work. But more importantly, the Standard can ensure that every engineer has the guidance required when they need to build robust systems that can land on the moon, solve the most complex problems, and ensure the survival of humankind and its evolution.

The Standard is intentionally technology-agnostic. Its principles apply to any programming language, and its tri-nature foundation can guide any development or design decisions beyond software. The Standard shall not be tied to any particular technology, nor shall it be a limitation to those who want to follow it, regardless of their language of preference. I will be using C# on the .NET framework only to materialize and realize the concepts of this Standard. However, knowing that at the early stages of forming this Standard, I was heavily using Scala as a programming language.

But what's more important about The Standard? The Standard is the option to set a measure for expertise, influence, and knowledge depth before making any decisions. It is also meant to play the role of inspiration for generations of engineers to come to either follow it, improve on it or come up with their own. The alternative is to build software without standards, which is subject to chaos and injustice when investing the best time into the best efforts. Our industry today is in chaos in terms of standardization. Unqualified individuals may have or take leadership positions, influencing those much more qualified to make unfortunate decisions.

The Standard is also my labor of love for the rest of the world. It is driven by and written with a passion for enhancing the engineering experience and producing efficient, rugged, configurable, pluggable, and reliable systems that can withstand any challenges or changes that occur almost daily in our industry.

[*] [Introduction to The Standard](#)⬀

[*] [Questions about The Standard](#)⬀