

Article Review: Theoretical and practical complexity of Modeling Methods

UML 1.X had 9 diagramming techniques which covered considerable number of object-oriented systems. Now UML 2.X is released but still old one is still use. Even if UML 2.0 standardizes the UML but still there are a lot of complexities involved with UML. We would be discussing metrics to analyze nine diagramming technique is UML.

UML 2.0 is another attempt to convince the clients, stakeholders, developers that it can do executable modeling which gives ability to developer at push of button to convert the model into working application. Executable model may or may not be output but new UML is larger complex than others and difficult to learn. Developing complex and secure systems have become tough in today's date and some of issues faced are that some of the complexities can be multiple environments, security, web interfaces etc. To design such complex systems, you need a lot of planning and include time and effort and previously incremental growth in software was used.

In general, there are multiple development methods and not necessary that one development method works for all kind of software and hence system development has become more time consuming and complex and due to complex nature of system diagram drawing has become more complex. Between 1989 and 1990 50 different OO analysis and design methods appeared some of were suitable for specific application while some were applicable for variety of software's. As there are multiple methods there are metrics would be associated.

Complexity is how easy a particular thing to do and not related how big or small the system is so this is the metric that is how easily problem is solved. Practical complexities can be subset of theoretical complexity. Theoretical complexity may have many diagrams but practical complexity we only use some so for e.g., Microsoft provides many features but, we only use some of them. So, there may be multiple constructs but only few constructs can build the entire system. Most important it is called as 80/20 rule that 80% of system can be built via 20% of constructs.

To conclude the theoretical complexity will not predict the complexity is reality but practical complexity can. Measure for practical complexity is tough but determining estimates is very possible and is very useful. Also, it is true that if the system design is complexity we would need more experienced and professional developer to develop the system. While creating the design we must also consider the actual usability in the same way in UML as well we do not consider all the constructs.