IV. Conclusion

This paper focuses on the test case prioritization-based BCE complexity measure approach (TCP-BCE) for events. An experiment using a case study (Circular Queue program) is conducted to evaluate TCP-BCE's effectiveness. APFD metric is used to calculate the effectiveness of NPTC and TCP-BCE. Based on the result, it can be concluded that TCP-BCE is less effective. This is due to the test cases that are prioritized based on complexity weightage event order. The more events involved in one test case, the more complicated it will be, and the weightage value will be higher. It is shown that using only a complexity factor as a factor to prioritize the test cases is not suitable and not comprehensive enough. Wherein the weightage is based on the complexity of the codes. The more complex the codes, the higher the test case's weightage value, and the value of the APFD will be lower; regardless of any complexity measure approach is implemented. It is recommended in the future that this proposed approach can be enhanced by including more factors to be combined with the complexity factor. However, remain to use BCE, since BCE calculation is proven to be a right measurement of complexity, and it also can estimate the number of relevant test cases needed for the program.

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