

Software Processes Assignment One

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1 Background

This report will attempt to model the software validation process in order to help determine appropriate benchmarks and resource allocation for the team testers working to validate the system in our current project.

The system validation process in software engineering can be conceptualised as a paradigm involving two sub-processes: fault finding and fault resolution, this paradigm will be used in order to aid the analysis.

The team available to work on testing the system and fixing bugs consists of three software engineers each working 25 hours per week.

2 Defect Detection

Data has been collected from a previous similar project with 300 known defects. This data contains an approximate time frame of when the defects were found (how many weeks it took a single tester working 25 hours per week to find them). Each defect is categorised by its impact to the project (high or low) and expected effort needed to resolve it (difficult or easy) resulting in four classes of defect: high impact difficult, high impact easy, low impact difficult and low impact easy (abbreviated HD, HE, LD and LE respectively).

[Figure: rate of defects found & cumulative defects found]

2.1 Log Linear Total

2.2 Log Linear by Type

2.3 Continuous Model

3 Metrics

4 Staff Allocation

5 Simulation

6 Discussion