

Active Learning Activity: Reliability Evaluation of Multi-Version Software

ECE 60872/CS 59000 – Fault Tolerant Computer System Design School of Electrical and Computer Engineering Purdue University Fall 2018

1. Compare the reliability of Simplex and NVP with 3 versions, with $k=1$, $C=1$.
 - a. As a function of time with $E = 1$, $t = 0.1, \dots, 1.0$
 - b. As a function of effort with $t = 0.5$, $E = 1, \dots, 10$
2. Compare the reliability of Simplex and RB with 3 versions, with $k=1$, $C=1$.
 - a. As a function of time with $E = 1$, $t = 0.1, \dots, 1.0$
 - b. As a function of effort with $t = 0.5$, $E = 1, \dots, 10$
3. Compare the reliability of Simplex and RB with 2 versions, with $k=1$, $C1=1$ (complexity of primary), $C2=0.1$ (complexity of secondary)
 - a. As a function of effort with $t = 0.5$, $E = 1, \dots, 10$.