Chapter 12 Exercises

Exercise 1: Suppose a component's reliability has undergone a number of tests. The recorded number of successes (alpha) and failures (beta) are used to estimate the probability of failure on demand for the component. Build a BN model that uses the Beta-Binomial method of predicting the number of failures that will be experienced in a given number of demands for this component (the model should have 5 nodes: alpha, beta, pfd, number of demands, number of failures). Experiment with different values of alpha and beta in the model.

Exercise 2: Open the model "12.6 Software defect prediction". Suppose 0 defects are found in operation for a 'very high' complexity component. By running the model with suitable observations determine the most likely explanation for the observed 0 defects.