Jon Raleigh randomstring.pdf – Random Testing (RT) Quiz CS362 7/22/18

The goal of the quiz is to make the random test generator capable of printing the error message using the inputChar() and inputString() functions. Additionally, the test generator should not take more than five minutes to accomplish this goal.

To accomplish the random part of the requirement, I used two simple random number generators to point to elements in an array used for the test.

To accomplish the second requirement, printing the error message, the char array "s" must read "reset" with a trailing null terminator, as well as the variable "state" must equal 9. In order for state to equal 9, the values "[({ ax})]" must have been previously tested as chars to change the state value.

In order to cover these two requirements, I limited the possible chars and char array to only include variables tested for in the testme() function. All characters other than those specified can only iterate the tcCount variable, which has no effect on any paths, so their inclusion is negligible.

For the inputString() function, I limited the char array to 6 values, since nothing above the null terminator at 5 is tested. Since the variable name is calling the char array a string, I did not include the null terminator as a random char, but instead included it as the final value of the array to create a null terminated string.

I limited the testing data to meet the time suggestion. The narrowing of possible values for c and s in the testme() function will dramatically decrease the time needed to test the function, meeting the five minute suggestion.