

MatLab Simulation Syntax with Comments

```
rng('default'); % Initialize the Random Number Generator.
rng(12); % Set Seed.

SampleSize = 10:10:1000; %Samples Sizes: 10 to 1k by 10s.
iterations = 10000; %Conduct the experiment 10k times.

fileID = fopen('Simulation.txt','w'); %Open Output File.
fprintf(fileID,'%s %s %s %s\r\n','SS','LL','UL', 'Range'); %Headings for File.

for SS = SampleSize %Loop Over the 100 Sample Sizes.
    for iter = 1:iterations %Run 10k experiments with above Parameters.
        % Test Experiment.
        DV = (randn(1,SS) * 1) + 0 %Generate Control Data with mu=0 and sigma=1.
        [h,p,ci] = ttest(DV) %Run one-sample t-test

        %Save Results in Output File.
        fprintf(fileID,'%0f %0.100f %0.100f %0.100f\r\n',SS, ci(1), ci(2), ci(2)-ci(1)); %Write Result
    of Experiment.
    end
end
fclose(fileID); %Close Output File.
```