Way of generating seeds :

My initial seed is 10, I need 70 seeds for my simulation(70 in total, 7 for each simulation – 10 simulations). I saved every seed after 100000 draws (span between seeds is 100000).

Generators:

I’m using 2 types of generators – exponential generator and uniform generator.

Uniform generator:  
M = 2147483647.0;   
A = 16807;   
Q = 127773;   
R = 2836;

int h = kernel\_/Q;  
kernel\_ = A\*(kernel\_-Q\*h)-R\*h;   
if (kernel\_ < 0)   
 kernel\_ = kernel\_ +static\_cast<int>(M);

Variable „kernel\_” is the current seed. Program calculated new value for kernel and this value will be returned as the new random number and also will be saved as the new seed.

Histogram of uniform generator ( 1.000.000 results were drawn, range (0 – 10))

Exponential generator:

double k = uniform\_->Rand01();  
 return -(1.0/lambda\_)\*log(k);

uniform\_ – uniform generator   
Rand01 – function returns random number in the range 0-1

Histogram of exponential generator(100.000 results were drawn, lambda = 0.132)