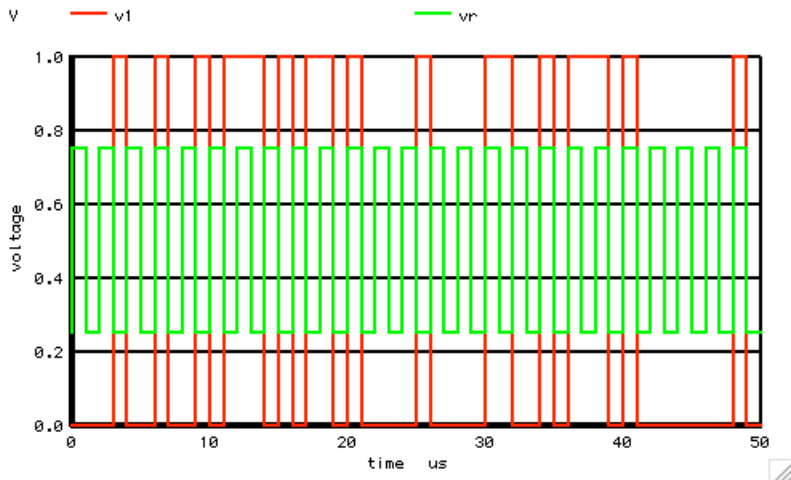


# =====Simple\_Digital\_Randomness=====

GENERATE A RANDOM DIGITAL SIGNAL FOR TRANSIENT ANALYSIS.



## Simple\_Digital\_Randomness

```

*====Need_A_voltage_Source_to_alter===="
V1          v1      0      dc      0
Vref        VR      0      dc      0 PULSE( .25 .75 1n 1n 1n 1u 2u )
.control
set        pensize = 2
echo
let n =    50
let tstep = 1us
echo      "Sample_Period_s = $tstep"
echo      "====Create_arrays_===="
unlet pwl_1
unlet noise
unlet ii
let pwl_1 = vector(4*n)
let noise = vector(n)
let ii =    vector(1*$n)
echo      "====create_Noise_array===="
let index = 0
repeat    $n
let      noise[index] = pos(rnd(127)-64)
let      index = index + 1
end
*plot      noise vs ii
echo      "====create_PWL_array===="
pwl_1[0] = 0
pwl_1[1] = noise[0]
pwl_1[2] = tstep -1n
pwl_1[3] = noise[0]
= n-1
let n2 = 1
let index = $n2
repeat    $n2
pwl_1[0+4*index] = pwl_1[4*index-4] +tstep
pwl_1[1+4*index] = noise[index]
pwl_1[2+4*index] = pwl_1[0+4*index] +tstep -1n
pwl_1[3+4*index] = noise[index]
let index = index + 1
end
echo      "====Install_the_PWL_array===="
alter     @v1[pwl] = pwl_1
echo      "====Run_and_Plot===="
let period_s = tstep/2
let period_t = n*tstep
tran      $period_s $period_t 0 $period_s
plot      v1 vr
.endc
.end

```