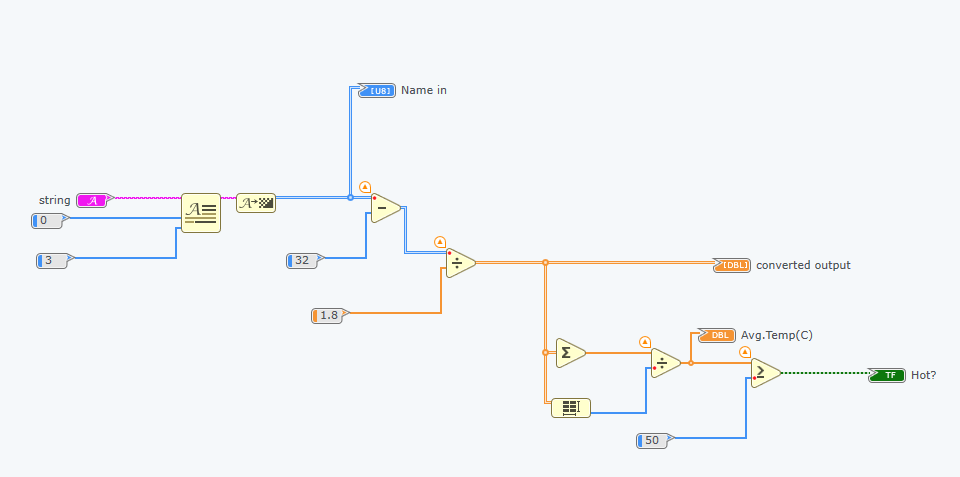
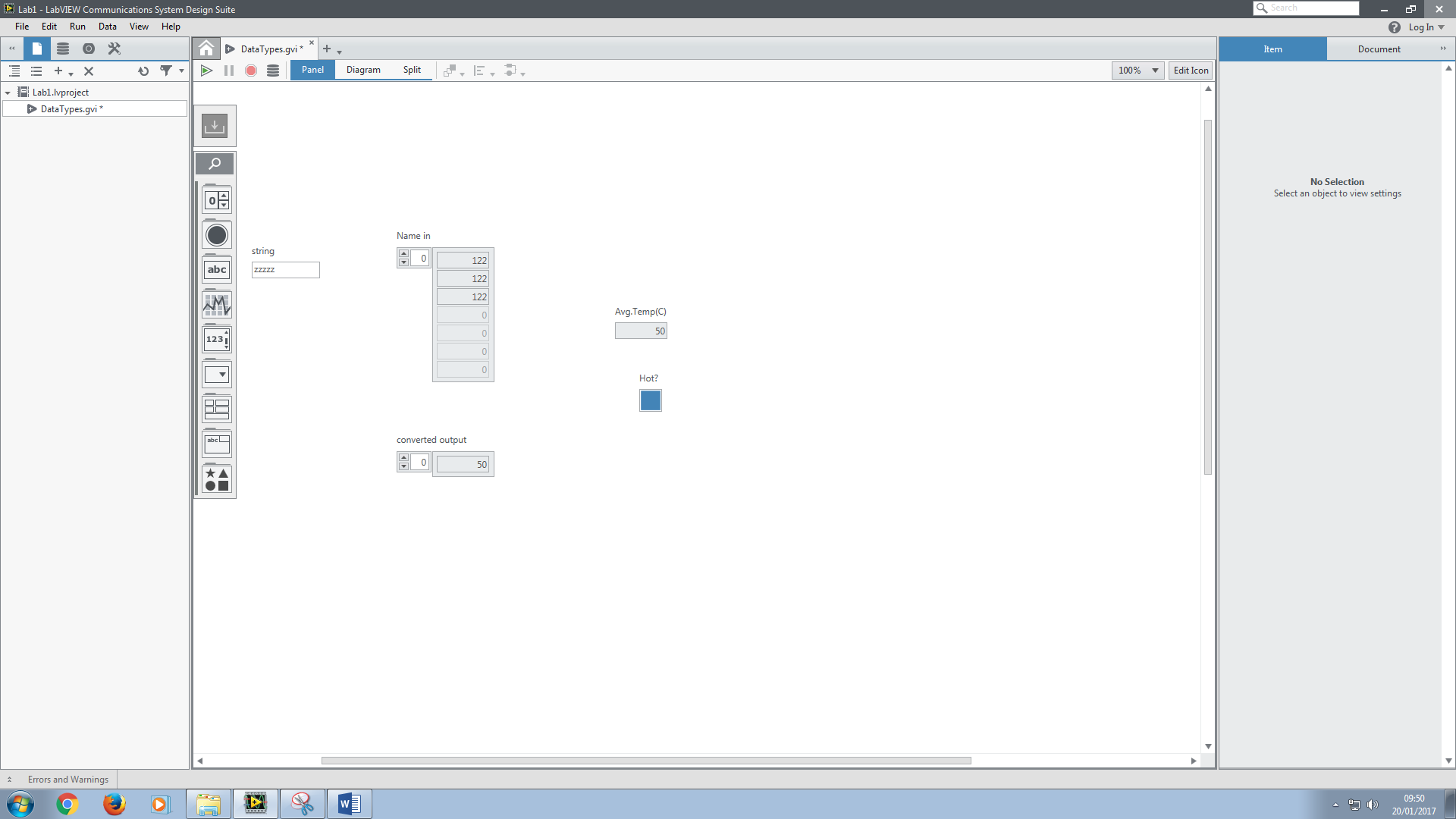
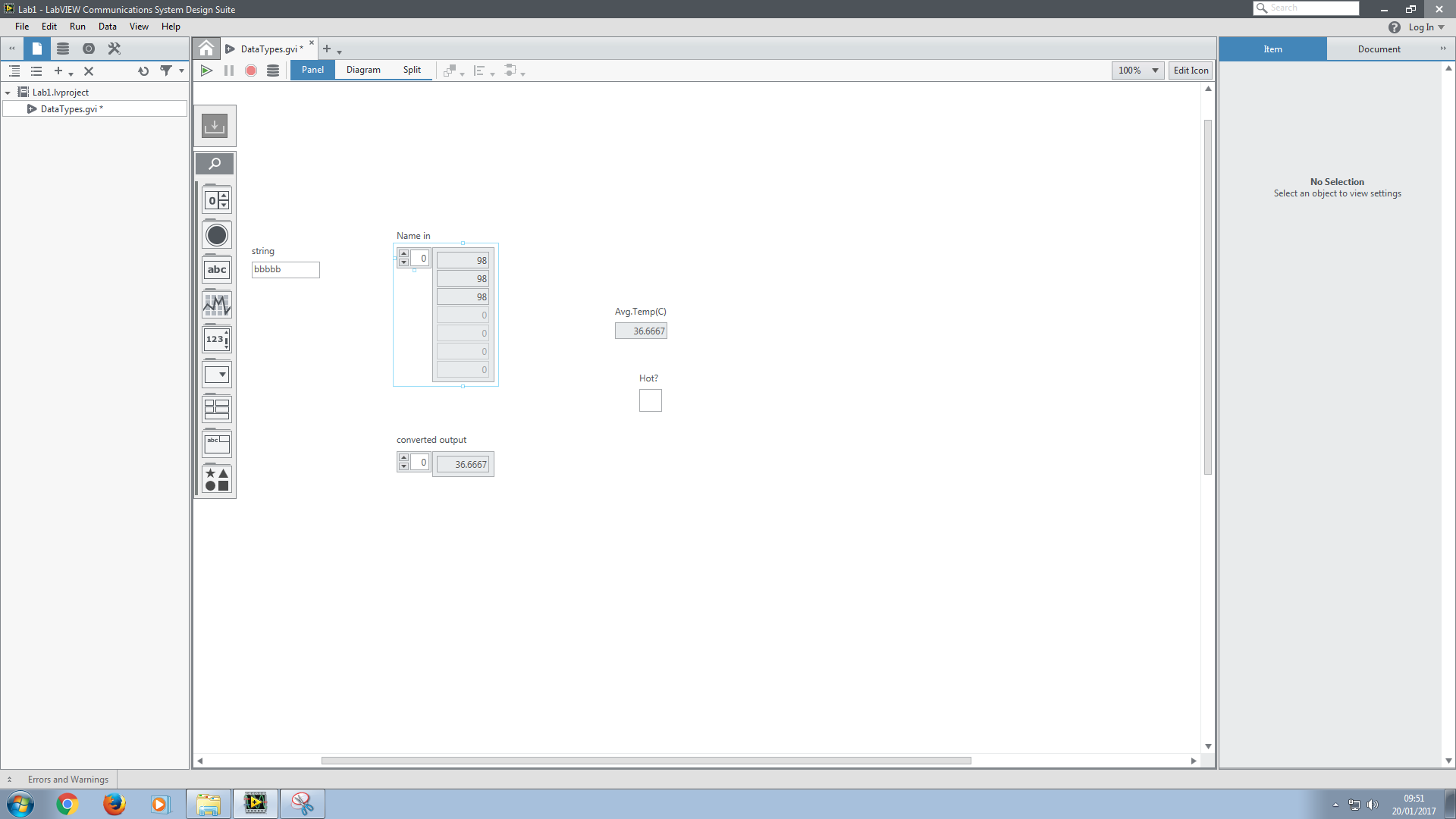
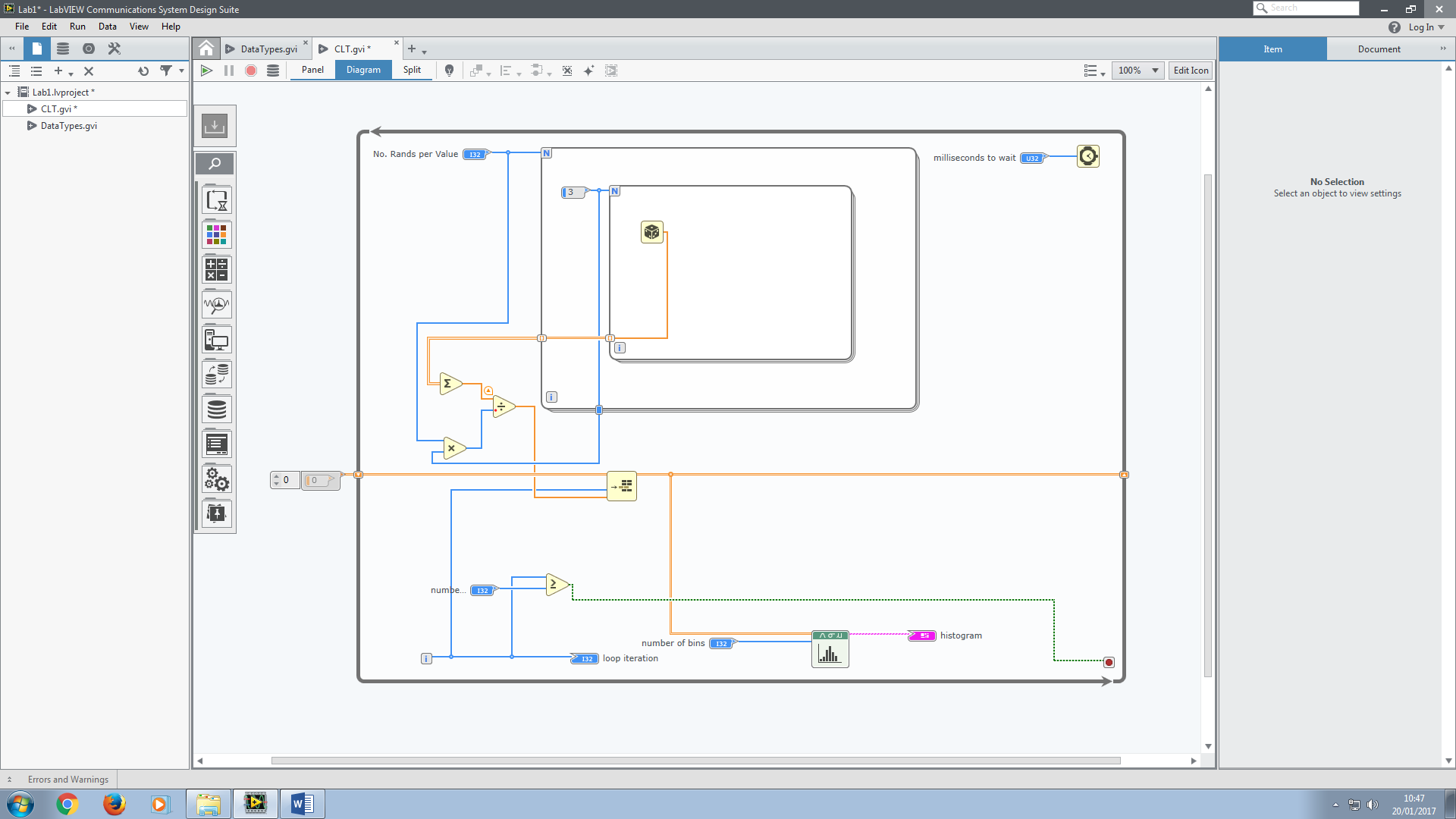
EX1.





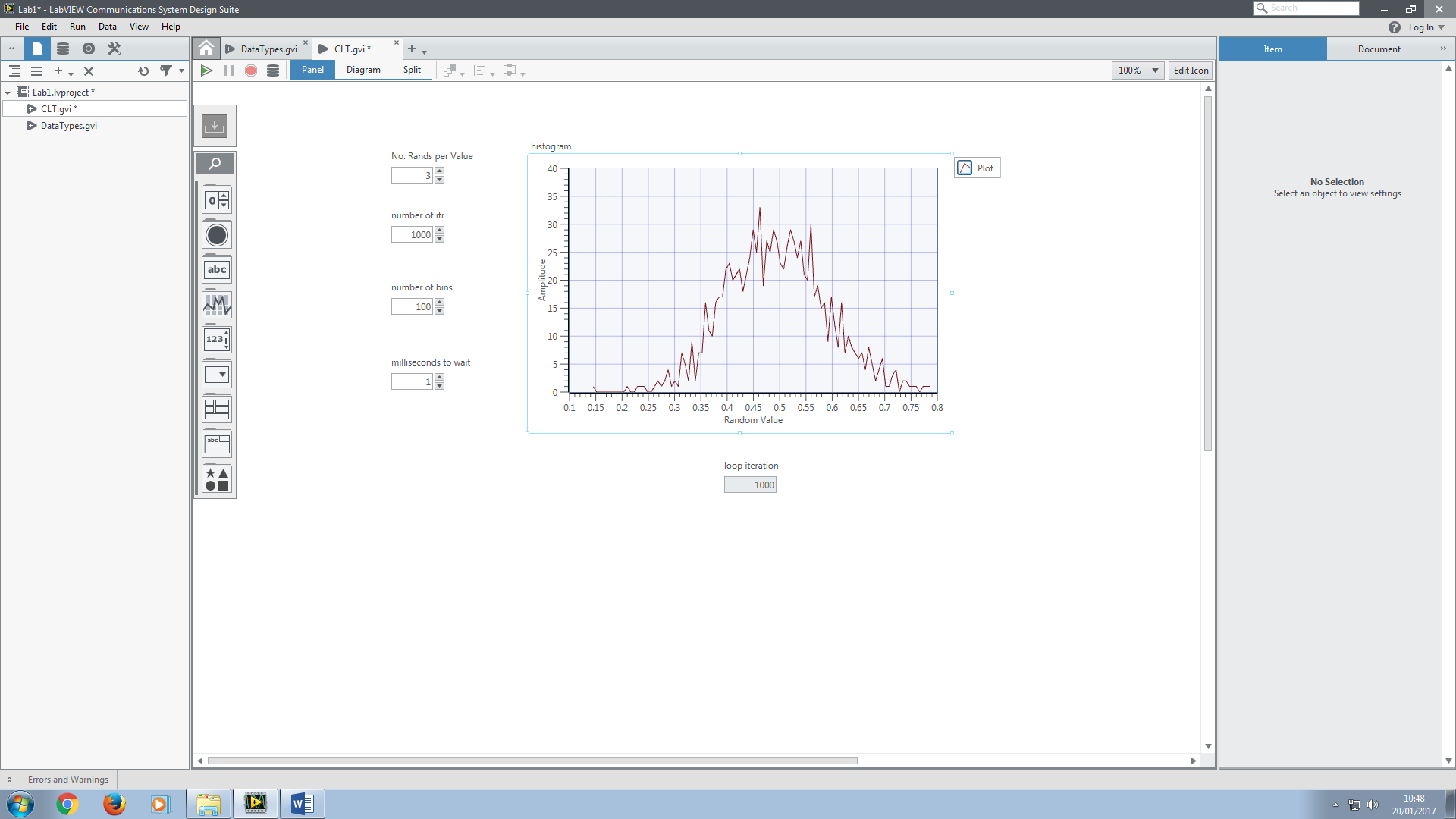


Ex2.



We observed that the normal distribution narrowed as we changed the number of random values averaged per sample (the variance decreased).

We also observed that the histogram approached the shape of a normal distribution as the number of samples increased.



We then altered our control such that the mean of the normal distribution was 0 and the variance was 1 (unit variance). We did this by taking away 0.5 and multiplying by a certain value as determined below:

We defined a new normal distribution Y with a mean of 0, but a variance which is not unity.

Z will be our normal distribution with unity variance as well as a mean of 0.

We need this to be equal to 1.

We already know that the mean is 0.

