

The Report (work2)

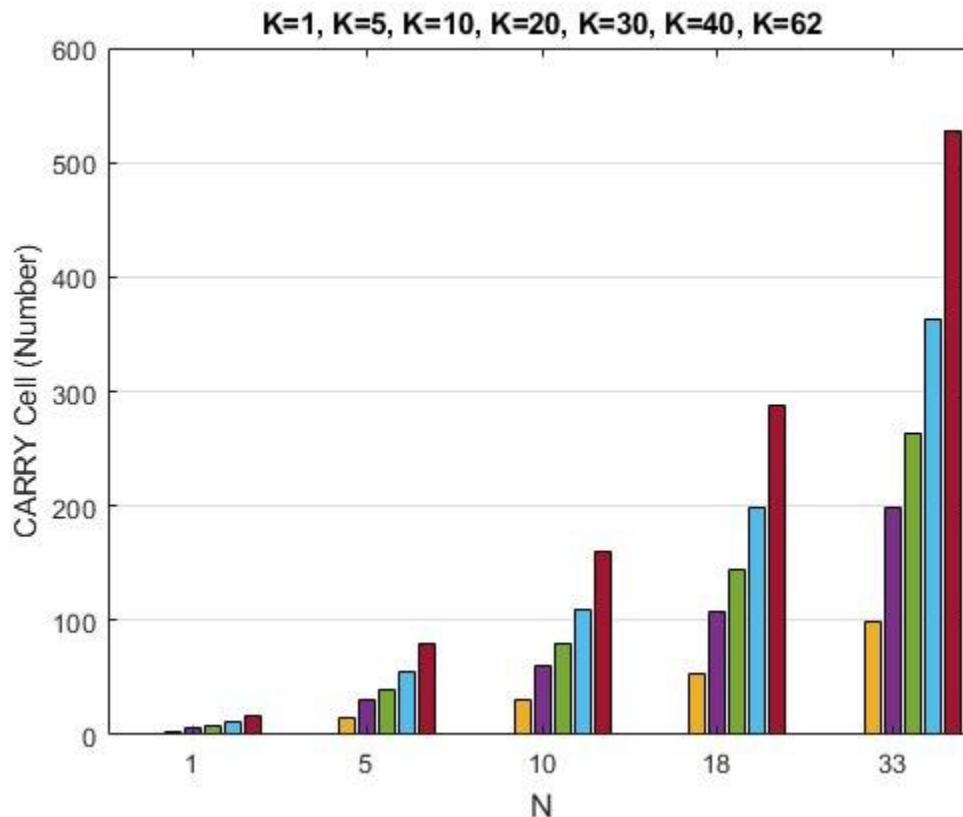
2021-05-17

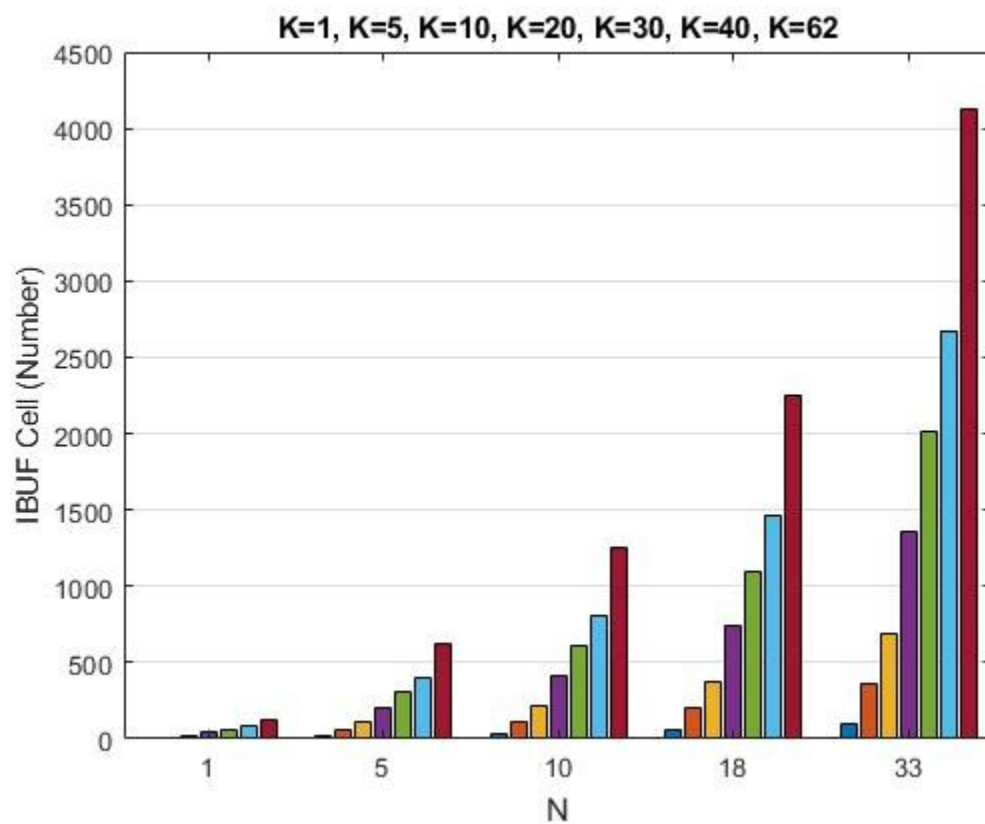
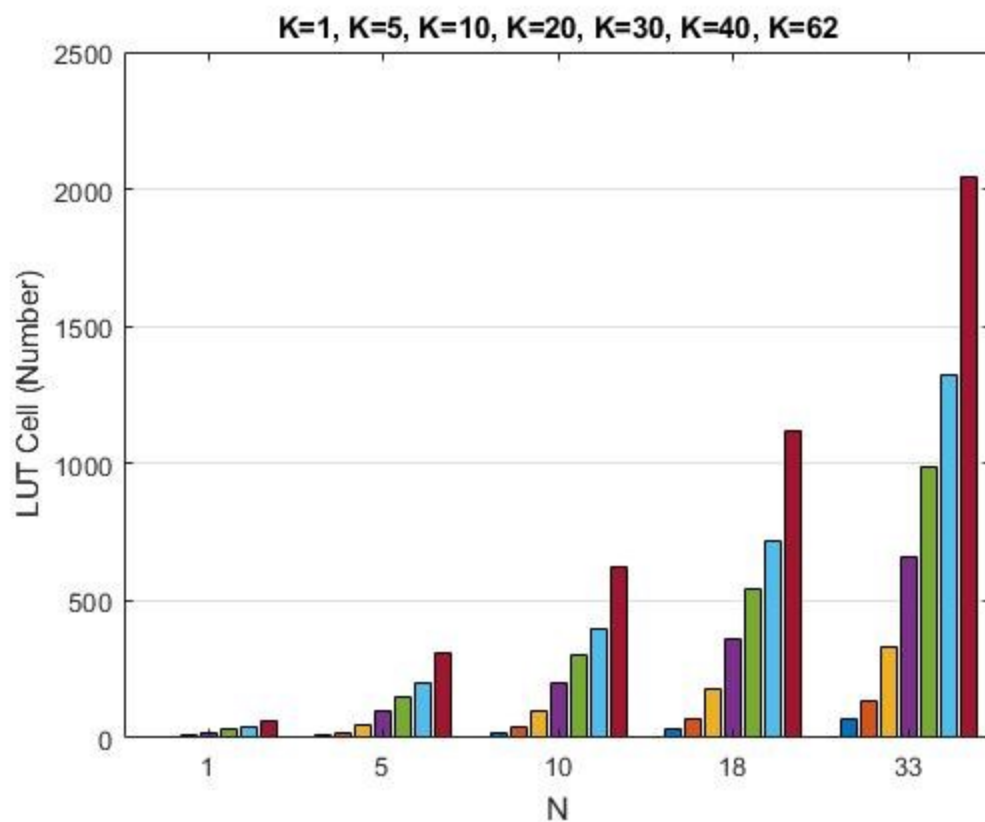
I need you to run synthesis evaluations of the area occupation and speed performance of your code in regard of n and k .

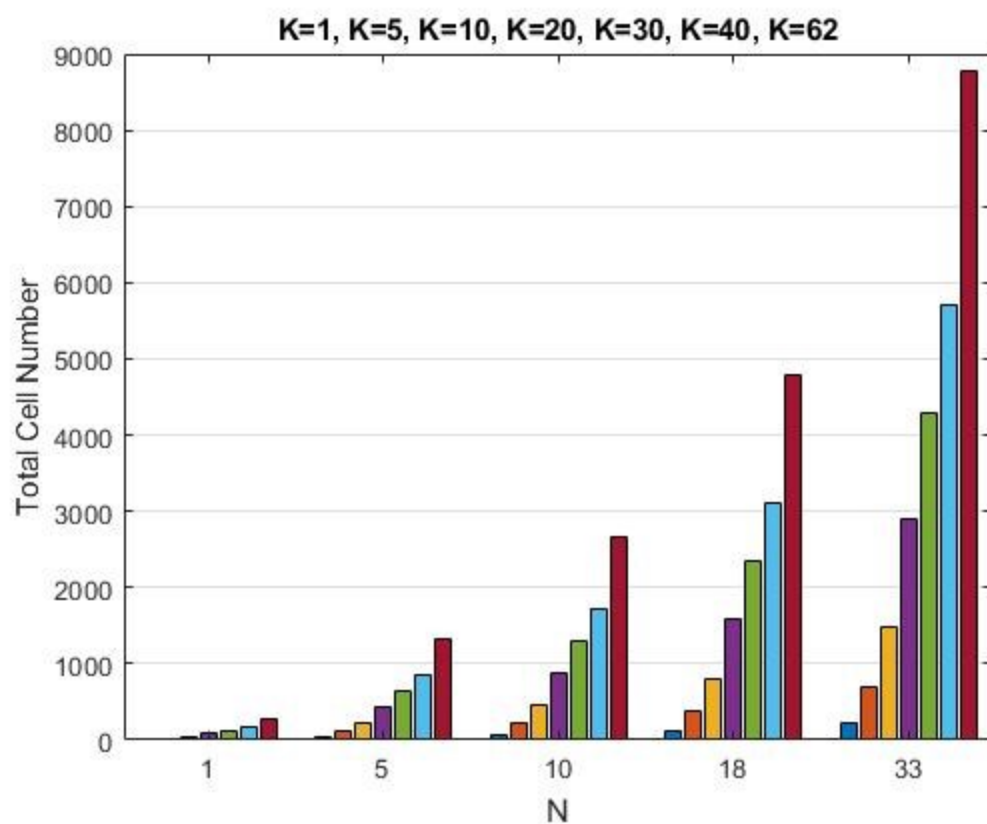
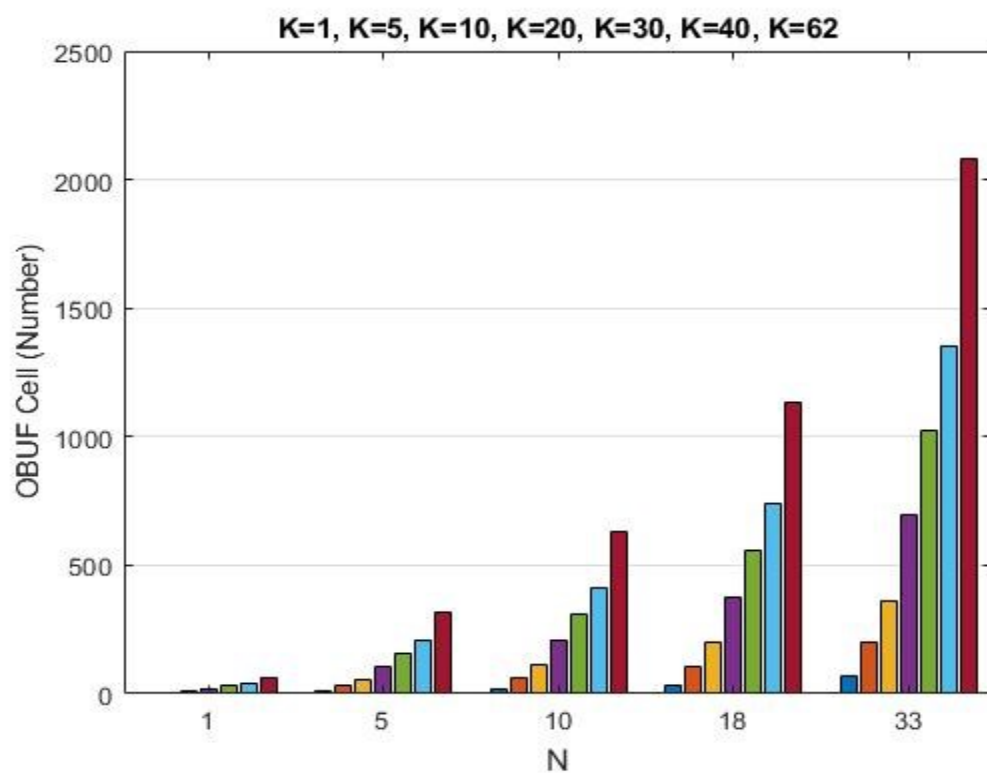
You can use the limit $n*k \leq 2048$.

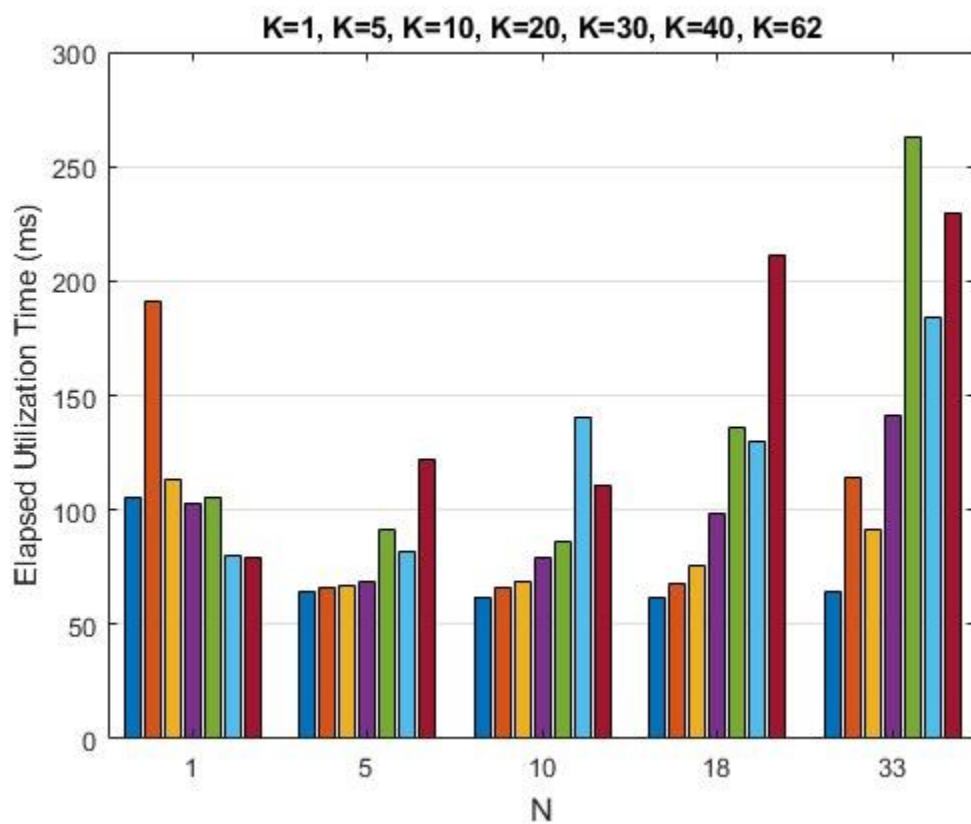
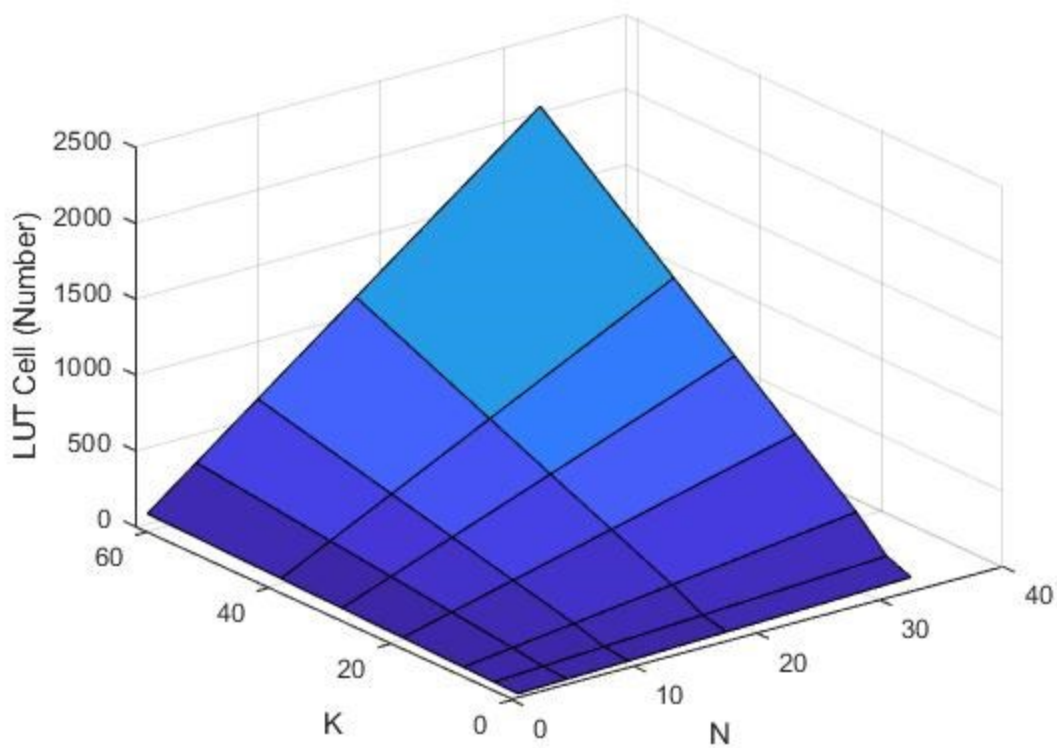
I wrote a new program for High Radix Carry Save Adder (hrca_adder_new.vhd). After executing the synthesis, results enter the Log's file (.log). In the last weekend I made a lot of efforts to be able to automatically change the value of N and K and finally be able to use the resulting Log files. I gained some intuition in this regard, but unfortunately I could not do it. So now to get the result, I manually changed the values of N , K and saved the result file in a separate folder. Then, I extracted the values of Carry Cell, LUT Cell, IBUF Cell, OBUF Cell, as well as Elapsed Utilization Time by using the MATLAB program and saved it in an Excel file (result.m). In the end, I plotted different diagrams with another program from MATLAB (show_plots.m).

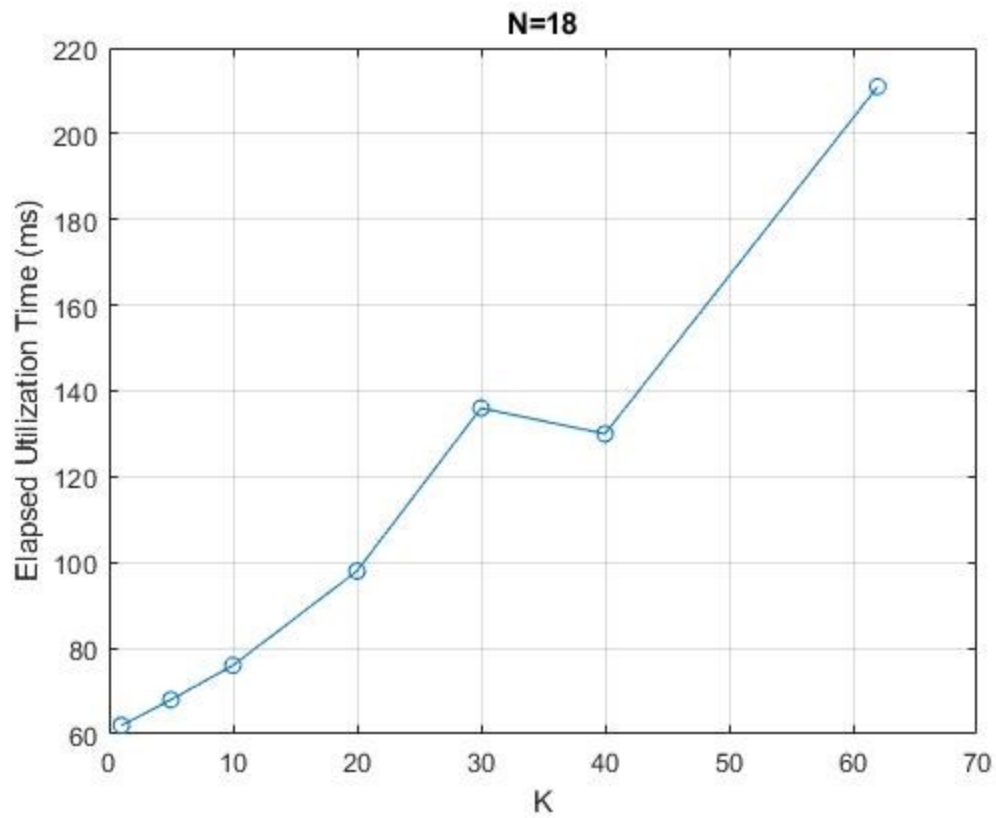
The results for High Radix Carry Save Adder by changing N , K are as follows.











For `hrccs_converter` and `hrccs_accumulator`, I can get the same results, but I'm looking for an automatic way to change N, K.

Please advise me how I can do this.