Lab #3 Report

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McGill University

ECSE 323

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# 52 – Element Stack

## Description of Circuit’s Function

The goal is to create a stack to hold a deck of 52 playing cards. The user can perform 5 operations:

* NOP: nothing happens
* INIT: initializes all 52 cards in the stack from value 0 to 51 and sets the NUM of the counter to 52
* PUSH: pushes the DATA value to the top of the stack. If the stack is full, nothing happens
* POP: pops the value of the stack located to the specified ADDR address. If the stack is empty, nothing happens.

## Design and Implementation

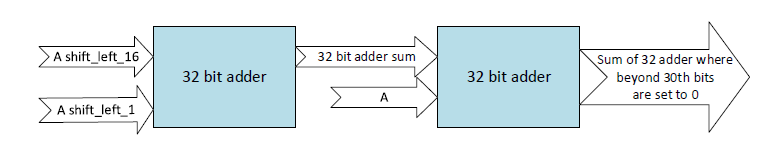


Figure 1 - Block Diagram of the RANDU Implementation for the First Iteration

## Timing Simulation

## Limitations and Advantages

# Test-Bed for 52 – Element Stack

## Description of Circuit’s Function

## Design and Implementation

## Timing Simulation

## Test-Bed on Altera Board

(add test floor and pin)

## On-Chip Testing with Signal Tap II Logic Analyzer

## Limitations and Advantages

# References

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