

Bachelor's Thesis

Tool for Decomposing Adders and Multipliers into 8-bit Components

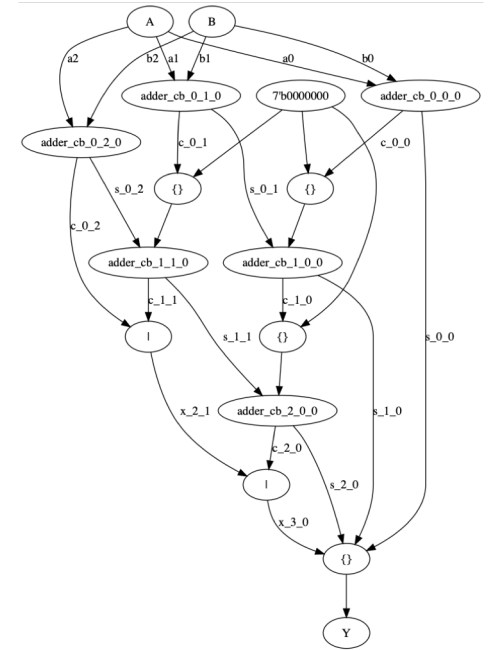
In Approximate Computing, the EvoApproxLib (EAL) is a well-known component library for approximate components, i.e., adders and multipliers, which are not accurate but may introduce errors. One drawback is that EAL only provides 8-bit components without carry. As a result, larger components have to be decomposed to be compatible with EAL. The thesis' goal is to implement different decomposition methods into the Yosys synthesis tool.

Type of project

- Familiarization with existing tools and design flows
- Implementation of different decomposition methods into Yosys
- Evaluation and comparison of the different methods

Prerequisites

- Programming skills in Python, C/C++, and VHDL/Verilog (or will to learn)
- Understanding of circuit and hardware design recommended



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