Rose-Hulman Institute of Technology
Computer Science and Software Engineering
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# Term Project Milestone 4 Evaluation (Components Specification) Team __1-3_
# Points: ___27_/30

| Evaluation Criteria Categories | Specific Criteria | Comments | Score |
|---|---|---|---|
| Consistency with higher level specifications | ❑ Components have interfaces (inputs, outputs, and control signals) that are consistent with the datapath specification, including signal widths.<br>❑ Components produce behaviors that are consistent with the assembly language and register transfer language levels of the design specification.<br>❑ Components implement their behaviors within the timing constraints imposed by the RTL specification. | | (3) |
| Self-consistency | ❑ Example: Specification of 1-bit ALU is consistent with specification of 16-bit ALU.<br>❑ Example: Specification of bi-directional variable-displacement shifter is consistent with specifications of unidirectional variable-displacement shifters. | | (3) |
| Demonstration of design principles<br>1. Simplicity favors regularity<br>2. Smaller is faster<br>3. Good design demands good compromises<br>4. Make the common case fast | ❑ Component specifications are as simple as reasonably possible (e.g. variable-displacement shifters are composed of multiple fixed-displacement shifters).<br>❑ Component specifications are as small as reasonably possible (e.g. variable-displacement shifters use as few fixed-displacement shifters as possible).<br>❑ Conflicts between the preceding criteria are resolved by considering overall performance (e.g. design of variable displacement shifters considers how often shifts of various displacements actually are used) | Components are specified and seem simple enough. | (3/3) |

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| Documentation (see below)<br>❑ Organization<br>❑ Completeness<br>❑ Conciseness<br>❑ Grammar and style | ❑ All design decisions necessary to implement Xilinx model are documented (components may be implemented by core generated objects or built-in symbols, which include gates and some higher-level entities)<br>❑ Clear English specifications as necessary<br>❑ Component tests | Your journal is fine, but it is missing any mention of how your component tests went. -1<br><br>Your memo is good.<br><br>Your design document looks ok, but you could have better tests. Xilinx isn't fun to use, but testbench waveforms can be used to test these things. -2 | (13/16) |

Required Documents

- Memo
  - Objective assessment of design and status
- Design Documentation
  - Demonstration of conceptual understanding
  - Highlights interesting features
- Design Process Journal
  - Alternatives considered
  - Tradeoffs
  - Decisions
- Website