Appendix M: List of Enumerated Examples and Exercises

Chapter 6. Code Structure and Composition

Examples

Chapter 7. Predefined Data Types

Examples

Exercises

Chapter 8. User-Defined Data Types

Chapter 9. Operators and Attributes

Chapter 10. Concurrent Code

Examples

Chapter 11. Concurrent Code: Practice

Examples

Exercises

Part 2: Combinational Arithmetic Circuits

Exercise 11.9. Unsigned and signed integer multipliers

Exercise 11.10. Unsigned and signed integer dividers

Exercise 11.11. Overflow analysis in division of integers

Exercise 11.12. Division of integers with rounding

Exercise 11.13. Floating-point adder and multiplier

Exercise 11.14. Floating-point subtracter and divider

Exercise 11.15. Generic chain-type adder array

Exercise 11.16. Generic tree-type adder array

Exercise 11.17. Multiple detector

Exercise 11.18. Square-root calculator

Chapter 12. Sequential Code

Examples

Example 12.1. Flip-flop inference with and without sensitivity list

Example 12.2. Consequences of incomplete sensitivity lists

Example 12.3. Counter with *is_max* flag and RTL analysis

Example 12.4. Counters with signal and variable

Example 12.5. Timer with BCD outputs

Example 12.6. Counter with *is_max* flag implemented with variable

Example 12.7. Flip-flop with *q* and *qbar* outputs

Example 12.8. Registered adder

Example 12.9. Shift register with odd implementations

Example 12.10. Recommended shift register implementation

Example 12.11. Leading-ones counter with combinational loop

Chapter 13. Sequential Code: Practice

Examples

Example 13.1. Generic tree-type adder array

Example 13.2. Single-switch debouncer

Example 13.3. FIR filter with fixed coefficients

Example 13.4. Sequential square-root calculator

Exercises

Chapter 14. Packages and Subprograms

Examples

Chapter 17. Additional Design Examples

Chapter 18. Introduction to Simulation with Testbenches