ERRATA FOR SECOND PRINTING

17 August, 1998

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18. Line 18, after "and multiplexors are fairly small", insert "compared to a memory unit or ALU"

19. Exercise 5.15, line 3, change "Chapter 4 on page 223" to "Chapter 3 on page 145"

20. Line 8, after "…that uses the sum", insert "($\leq 0$)"

21. Line 11, after "…to the ID stage.", insert "Figure 6.51 shows the revised datapath."

22. Line 6, before the sentence beginning "By moving…", insert the following sentence, "Moving the branch test to the ID stage implies copying the forwarding and hazard detection hardware as well, since a branch dependent on a result still in the pipeline must still work properly with this optimization."

23. Line 11, delete the sentence "Figure 6.51 shows the revised datapath."

24. Line 5 of the figure caption text, after the last sentence, insert the following sentence, "The forwarding muxes and paths must also be added to this stage, but are not shown to simplify the figure."

25. In the answer to the example, line 2, change "page 376" to "page 397"

26. In the answer to the example, line 11, change "4.04ns" to "4.04 x 2ns or 8.08ns"

27. In the answer to the example, lines 12-13, change "1.7 times faster than multicycle and" to "about" and insert "multicycle or" before "single-cycle control."

28. Line 4, change "page 385" to "page 410"

29. Exercise 6.21, line 1, change "Exercise 5.15" to "Exercise 5.12"

30. Exercise 6.26, change "sw $3 40($4)" to "sw $3, 40($4)"

31. In the answer to the example, in the formula for Total CPI, insert "10 +" before "2% x 100 = 3.5"

32. Line 10, insert "of" after "which points to the first word"

33. In the "Multiply (without overflow)" section, line 1, change "rsrc" to "rsrcl"

34. In the "Multiply" section, in the 3rd field, change "r" to "rt"

35. In the "Unsigned multiply" section, in the 3rd field, change "r" to "rt"

36. In the "OR" section, line 1, change "rd into register rt" to "rt into register rd"

37. In the "Shift right arithmetic" section, in the 2nd, 3rd, and 4th fields, change "R" to "r"

38. In the "Shift right logical variable" section, line 1, change "sa" to "shamt"

39. In the "Shift right logical variable" section, after the last sentence, insert the following sentence "Note that argument rs is ignored for sll, sra, and srl."
40. **A-62** In the "Branch on equal" section, change "beq Rs, Rt, label" to "beq rs, rt, label"

41. **A-62** In the "Branch on equal" section, in the 2nd and 3rd fields, change "R" to "r"

42. **A-62** In the "Branch on greater than equal zero" section, in the 2nd field, change "R" to "r"

43. **A-63** In the "Branch on equal zero" section, line 1, change "rsrcl" to "rsrcl"

44. **A-64** In the "Branch on greater than unsigned" section, change "bgtu rsrcl, rrc2, label" to "bgtu rsrcl, src2, label"

45. **A-65** In the "Jump and link" section, line 2, change "register ra (register 31)" to "register $ra"

46. **A-65** In the "Jump register" section, in the 1st field, change "0×0" to "0"

47. **A-65** In the "Jump register" section, in the 4th field, change "0×8" to "8"

48. **A-65** In the "Jump register" section, change the labels for the 3rd and 4th fields from "16" and "5" to "15" and "6"

49. **A-66** In the "Load unsigned halfword" section, line 1, change "register tt" to "register rt"

50. **A-66** In the "Load word right" section, change all cases of "Rt" to "rt"

51. **A-66** In the "Load word right" section, in the 1st field, change "0×23" to "0×26"

52. **A-68** In the "Store word coprocessor" section, in the 1st field, change "0×3(1-z)" to "0×32"

53. **A-69** In the "Move to hi" section, change "mthi" to "mthi rs"

54. **A-69** In the "Move to lo" section, change "mtlo" to "mtlo rs"

55. **A-72** In the "Convert double to single" section, in the 4th and 5th fields, change "Fd" to "fd"

56. **A-73** In the "Negate double" section, in the 3rd field, change "ft" to "0"

57. **A-73** In the "Negate single" section, in the 3rd field, change "ft" to "0"

58. **A-75** In the "Break" section, change "break" to "break code"

59. **B-8** Line 15, change "Outn" to "Out2^n-1"

60. **B-10** In the 3rd equation, change the diamonds to centered dots

61. **B-26** Figure B.19, 4th row, change "Register n−1" to "Register n−2"

62. **B-26** Figure B.19, 5th row, change "Register n" to "Register n−1"

63. **B-27** Figure B.20, 4th row, change "Register n−1" to "Register n−2"
64. B-27  *Figure B.20, 5th row*, change "Register \( n \)" to "Register \( n-1 \)"

65. B-32  *In the elaboration, line 5*, change "the switch is open" to "the switch is closed"

66. B-48  *Exercise B.25, line 2*, change "page 36" to "page B-36"