VIII. APPENDIX II

The following are the recommended pin assignments in order to set up SignalTap for Lab 2.2. Note that because of an insufficient number of inputs once you extend the logic processor to 8 bits, you will still need to hard wire the F and R appropriately (using assign statements) to do the operation specified in the demo points. This is broken up into two sections. The first section consists of the minimal inputs required to do the operation, while the second section has additional LEDs you might wish to use for debugging.

Pin Assignment Table (Minimal Inputs)

Port Name	Location	Comments
Din[0]	PIN_C10	On-board slider switch (SW0)
Din[1]	PIN_C11	On-board slider switch (SW1)
Din[2]	PIN_D12	On-board slider switch (SW2)
Din[3]	PIN_C12	On-board slider switch (SW3)
Din[4]	PIN_A12	On-board slider switch (SW4)
Din[5]	PIN_B12	On-board slider switch (SW5)
Din[6]	PIN_A13	On-board slider switch (SW6)
Din[7]	PIN_A14	On-board slider switch (SW7)
LoadB	PIN_B14	On-board slider switch (SW8)
LoadA	PIN_F15	On-board slider switch (SW9)
Clk	PIN_P11	50 MHz Clock from the on-board oscillators
Reset	PIN_B8	On-Board Push Button (KEY0)
Execute	PIN_A7	On-Board Push Button (KEY1)

The following second section of pin assignments maps the HEX drivers to the various segments of the FPGA board's 7-segment displays. This is not necessary for SignalTap operation, as the values of RegA and RegB may be captured and displayed via SignalTap even if the LEDs are not mapped. However, your LEDs and 7-segment displays will display scrambled data if these pin assignments are not mapped.

Pin Assignment Table (LEDs/HEX Displays)

Port Name	Location	Comments
BhexL[0]	PIN_C14	On-Board seven-segment display segment
BhexL[1]	PIN_E15	On-Board seven-segment display segment
BhexL[2]	PIN_C15	On-Board seven-segment display segment
BhexL[3]	PIN_C16	On-Board seven-segment display segment
BhexL[4]	PIN_E16	On-Board seven-segment display segment
BhexL[5]	PIN_D17	On-Board seven-segment display segment
BhexL[6]	PIN_C17	On-Board seven-segment display segment
BhexU[0]	PIN_C18	On-Board seven-segment display segment
BhexU[1]	PIN_D18	On-Board seven-segment display segment

BhexU[2]	PIN_E18	On-Board seven-segment display segment
BhexU[3]	PIN_B16	On-Board seven-segment display segment
BhexU[4]	PIN_A17	On-Board seven-segment display segment
BhexU[5]	PIN_A18	On-Board seven-segment display segment
BhexU[6]	PIN_B17	On-Board seven-segment display segment
AhexL[0]	PIN_B20	On-Board seven-segment display segment
AhexL[1]	PIN_A20	On-Board seven-segment display segment
AhexL[2]	PIN_B19	On-Board seven-segment display segment
AhexL[3]	PIN_A21	On-Board seven-segment display segment
AhexL[4]	PIN_B21	On-Board seven-segment display segment
AhexL[5]	PIN_C22	On-Board seven-segment display segment
AhexL[6]	PIN_B22	On-Board seven-segment display segment
AhexU[0]	PIN_F21	On-Board seven-segment display segment
AhexU[1]	PIN_E22	On-Board seven-segment display segment
AhexU[2]	PIN_E21	On-Board seven-segment display segment
AhexU[3]	PIN_C19	On-Board seven-segment display segment
AhexU[4]	PIN_C20	On-Board seven-segment display segment
AhexU[5]	PIN_D19	On-Board seven-segment display segment
AhexU[6]	PIN_E17	On-Board seven-segment display segment