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--      BtnDemo.vhd -- Demonstrate D2SB On-Board Button and LED
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-- This module demonstrates connects the button to the LED on the D2FT board.
--
-- Inputs:
--      btn                - button on the D2-SB board
--
-- Outputs:
--      led                - discrete LED on the D2-SB board
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-- Revision History:
-- 09/18/2003(ClintC): created
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library IEEE;
use IEEE.STD_LOGIC_1164.ALL;
use IEEE.STD_LOGIC_ARITH.ALL;
use IEEE.STD_LOGIC_UNSIGNED.ALL;

entity D2SBBtnDemo is
    Port ( btn, mclk : in std_logic;
          led       : out std_logic);
end D2SBBtnDemo;

architecture Behavioral of D2SBBtnDemo is
    signal cntClk : std_logic_vector(23 downto 0);
begin
    process (mclk)
    begin
        if mclk = '1' and mclk'Event then
            cntClk <= cntClk + 1;
        end if;
    end process;

    led <= cntClk(23) or btn;
end Behavioral;

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User Constraints File (UCF)

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NET "mclk" LOC = "P182";
NET "btn" LOC = "P187";
NET "led" LOC = "P154";

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