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library ieee;
use ieee.std_logic_1164.all;
use ieee.std_logic_unsigned.all;

entity control is
port(   clk: in std_logic;
        nrst: in std_logic;
        start: in std_logic;
        rst_acum: buffer std_logic;
        ena_acum: buffer std_logic;
        dir_digito: buffer std_logic_vector(1 downto 0);
        fin_op: buffer std_logic);
end entity;

architecture rtl of control is
    type t_estado is (ini, uno, dos, fin_operacion);
    signal estado: t_estado;
begin

    process(clk, nRst)
    begin
        if nRst = '0' then
            estado <= ini;
        elsif clk'event and clk = '1' then
            case estado is
                when ini =>
                    if start = '1' then
                        estado <= uno;
                    end if;
                when uno => estado <= dos;
                when dos => estado <= fin_operacion;
                when fin_operacion => estado <= ini;
            end case;
        end if;
    end process;

    process(estado, start)
    begin
        case estado is
            when ini =>
                dir_digito <= "00";
                fin_op <= '0';
                ena_acum <= '1';
                rst_acum <= start;
            when uno =>
                dir_digito <= "01";
                fin_op <= '0';
                ena_acum <= '1';
                rst_acum <= '0';
            when dos =>
                dir_digito <= "10";
                fin_op <= '0';
                ena_acum <= '1';
                rst_acum <= '0';
        end case;
    end process;
end architecture;

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        when fin_operacion =>
            dir_digito <= "11";
            fin_op <= '1';
            ena_acum <= '0';
            rst_acum <= '0';
        end case;
    end process;
end rtl;
```