

# Software design tool for an automatic PicoBlaze type system development

*Ph.D Student Vl. Ivanov*

*E-mail: [Ivanov.vladi@gmail.com](mailto:Ivanov.vladi@gmail.com)*

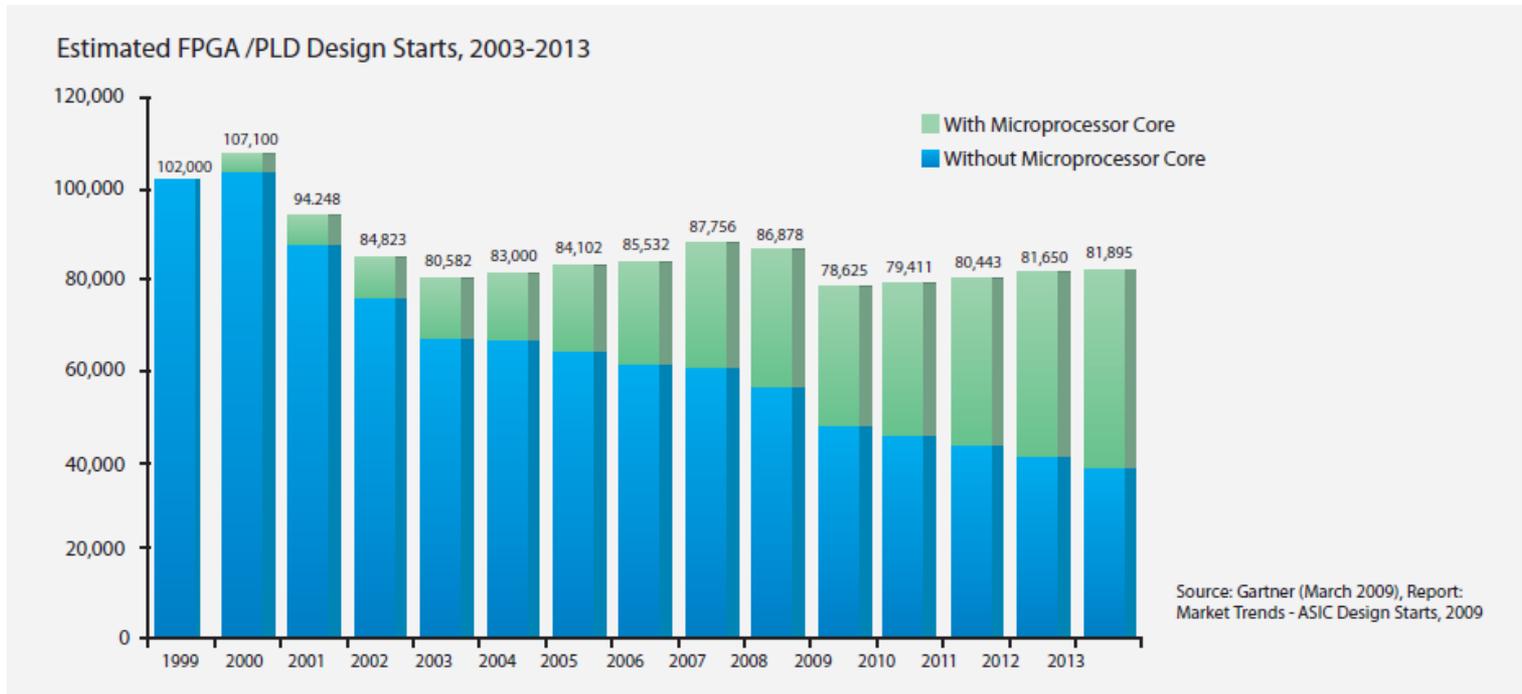
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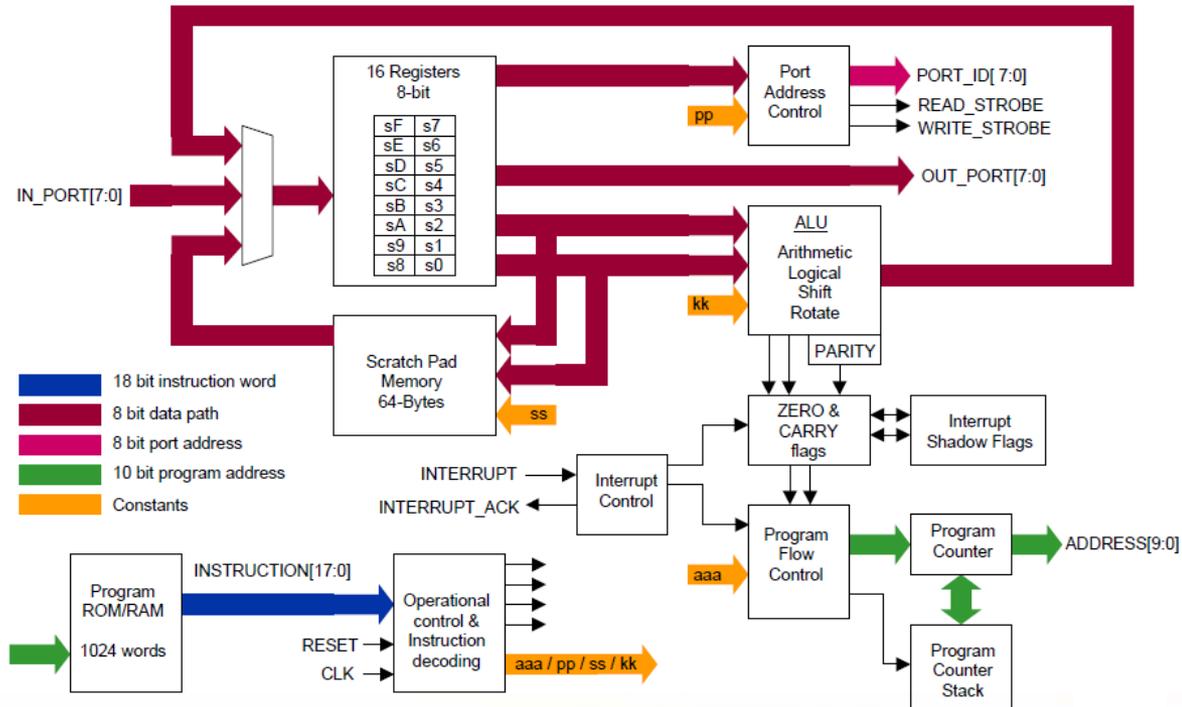
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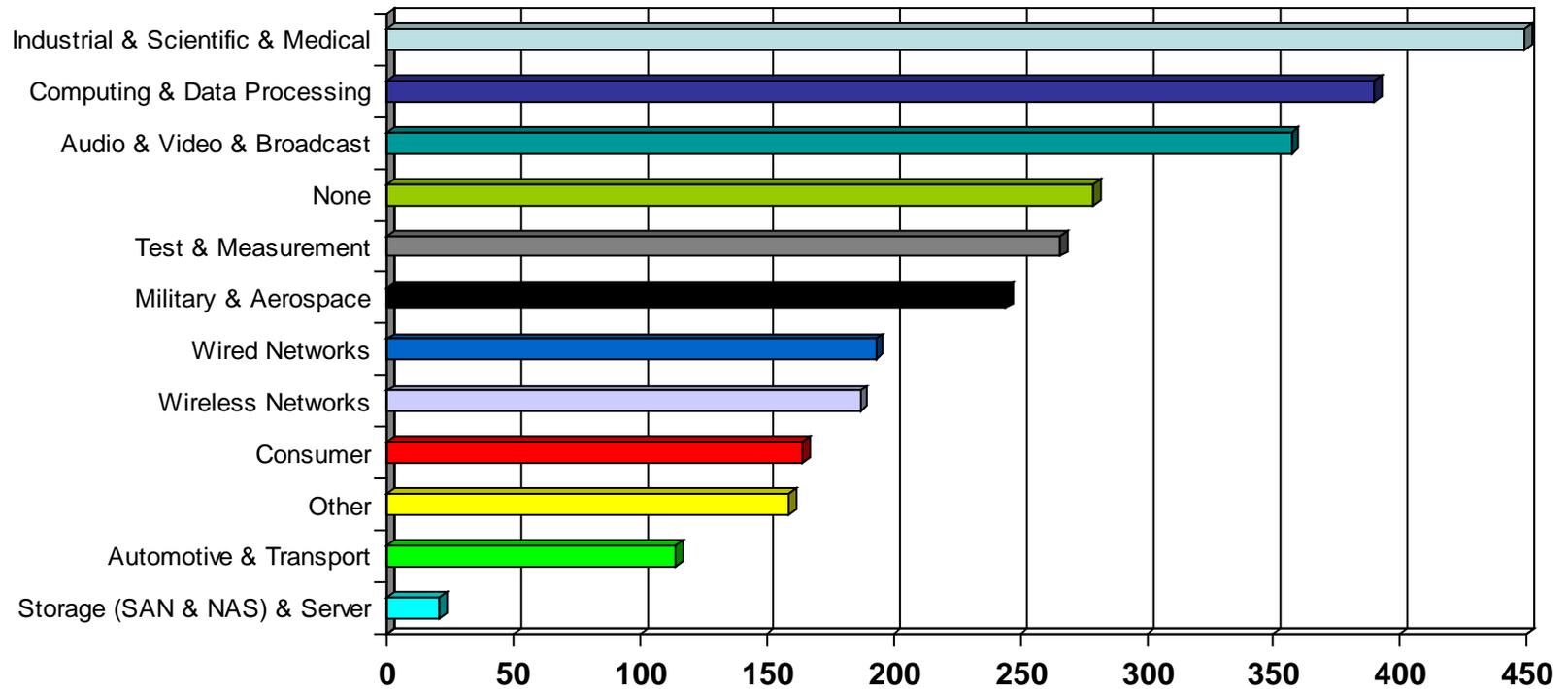
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# KCPSM3 Architecture



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## Who Uses PicoBlaze?



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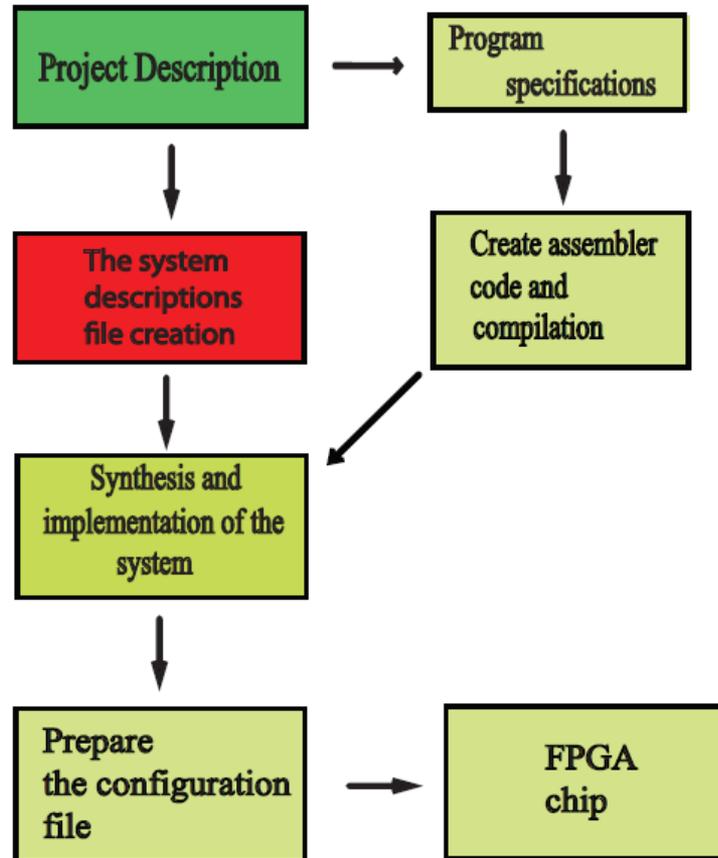
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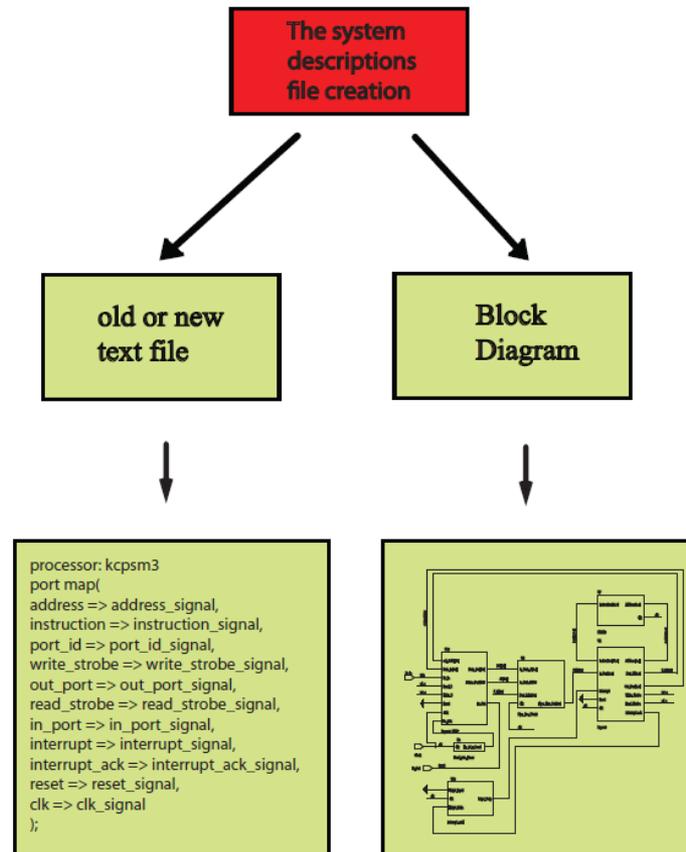


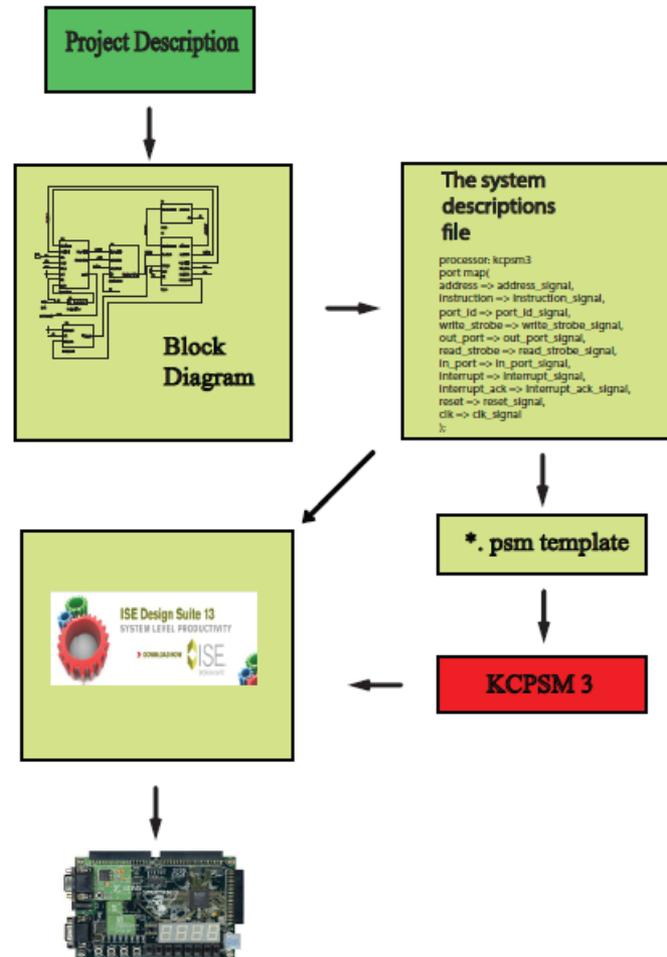
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```
LIBRARY IEEE;
USE IEEE.std_logic_1164.all;
use IEEE.STD_LOGIC_ARITH.ALL;
use IEEE.STD_LOGIC_UNSIGNED.ALL;
use IEEE.NUMERIC_STD.ALL;
library UNISIM;
use UNISIM.VComponents.all;
ENTITY base_pb IS
  Port ( Tx_Out : OUT std_logic;
        Rx_In : IN std_logic;
        Clock : IN std_logic);
END base_pb ;

ARCHITECTURE STRUCTURE OF
base_pb IS
-- COMPONENTS
COMPONENT Interrupt_cntrl
COMPONENT kcpsm3_UART
COMPONENT kcpsm3
COMPONENT Pipe_line_Mux2
COMPONENT base_pb_PROM3
COMPONENT Baud_rate_Timer
BEGIN
U13 : Interrupt_cntrl
PORT MAP(
  Intrpt_Input => GND,
  clk => CLOCK,
  Intrpt_Outp => N02498,
  Intrpt_Ackn => N02565);

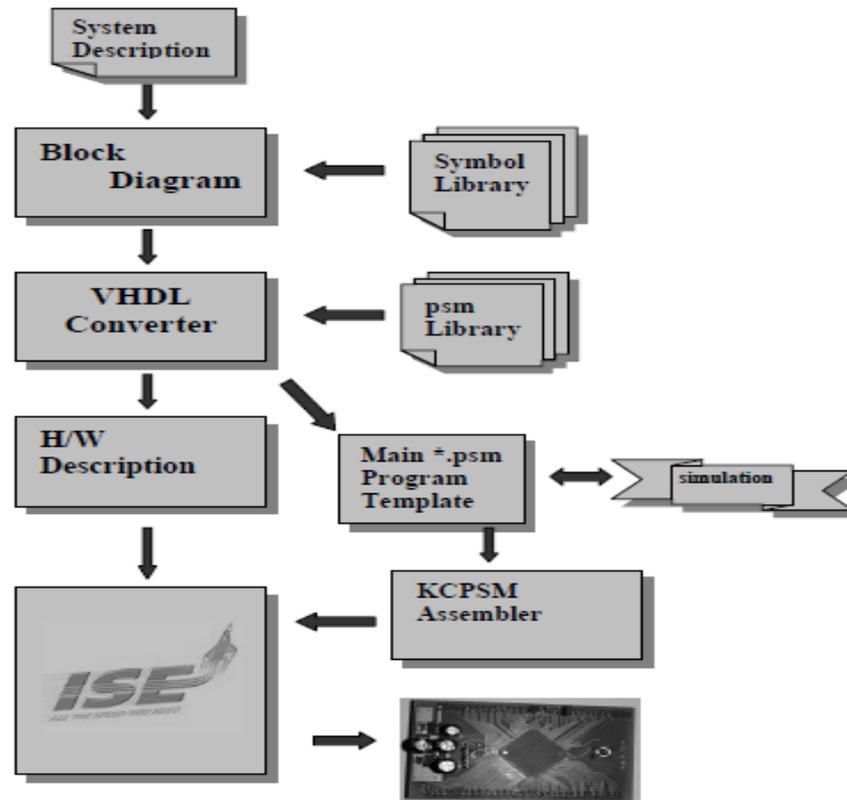
U8 : Baud_rate_Timer
PORT MAP(
  Clk => CLOCK,
  En_16_x_baud => N01659 );

U6 : Pipe_line_Mux2
PORT MAP(
  IN_DATA_A => DO,
  clk => CLOCK,
  IN_DATA_B => SP,
  PIPE_MUX_OUT => PMX,
  PORT_ADDR => P_ID);

U7 : base_pb_PROM3
PORT MAP(
  ADDRESS => ADDR,
  INSTRUCTION => ISTR,
  Clk => CLOCK );

U15 : kcpsm3_UART
PORT MAP(
  DATA_OUT => DO,
  Read_B => RD_S,
  En_16x => N01659,
  clk => CLOCK,
  Rx_In => RX_IN,
  Write_B => WR_S,
  DATA_IN => ODAT,
  STATUS_PORT => SP,
  Tx_Out => TX_OUT,
  ADR_SELKT => P_ID,
  Reset => GND);

U4 : kcpsm3
PORT MAP(
  Write_Strobe => WR_S,
  OUT_PORT => ODAT,
  ADDRESS => ADDR,
  INSTRUCTION => ISTR,
  PORT_ID => P_ID,
  IN_PORT => PMX,
  Read_Strobe => RD_S,
  interrupt => N02498,
  Reset => GND,
  Clk => CLOCK,
  interrupt_ack => N02565 );
END STRUCTURE;
```



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Thank you

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