

 Base System Builder



WelcomeBoardSystemProcessorPeripheralCacheSummary

Welcome to the Base System Builder

This tool leads you through the steps necessary for creating an embedded system.

Select One of the Following:

☒ I would like to create a new design

☐ I would like to load an existing .bsb settings file (saved from a previous sessi

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Welcome

Board

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Summary

Board Selection

Select a target development board.

Board

☒ I would like to create a system for the following development board

Board Vendor

Digilent

Board Name

Digilent Genesys System Board

Board Revision

C

☐ I would like to create a system for a custom board

Board Information

Architecture	Device	Package	Speed Grade
virtex5	xc5vlx50t	ff1136	-1
<input type="checkbox"/> Use Stepping			
Reset Polarity	Active Low		

Related Information

[Vendor's Website](#)

[Vendor's Contact Information](#)

[Third Party Board Definition Files Download Website](#)

The Genesys board utilizes a Xilinx Virtex 5 XC5VLX50T-FFG1136 device. The board includes Tri-Mode Ethernet MAC/PHY, 256MB DDR2 SDRAM SODIMM memory, 32MB of Intel P30 Flash, DVI ouptut, Digilent USB-EPP port, Xilinx USB host and device controller and 2 RS232 serial ports.

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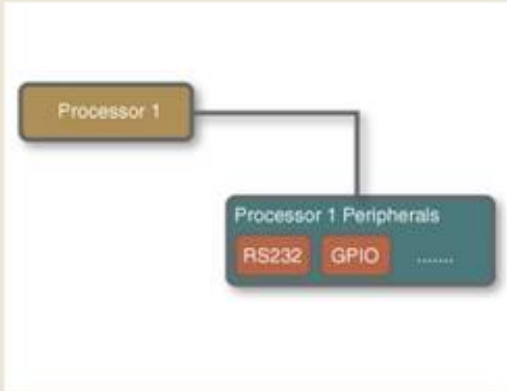
Summary

System Configuration

Configure your system.

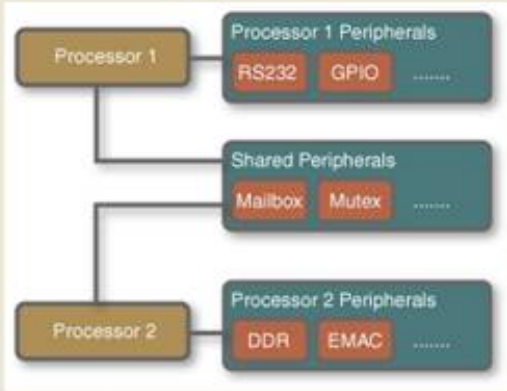
☒ Single-Processor System

Select this option to create a design with a single processor. This Wizard will let you configure the processor, the peripheral set and some major configuration parameters for the peripherals.



☐ Dual-Processor System

Select this option to create a design with two processors. This Wizard will let you select the types of processors, peripherals unique to each processor, and peripherals shared by the processors.



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Summary

Processor Configuration

Configure the processor(s).

Reference Clock Frequency

100.00

MHz

Processor 1 Configuration

Processor Type

MicroBlaze

System Clock Frequency

125.00

MHz

Local Memory

64 KB

Debug Interface

On-Chip HW Debug Module

☐ Enable Floating Point Unit

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Summary

Peripheral Configuration

To add a peripheral, drag it from the "Available Peripherals" to the processor peripheral list. To change a core parameter, click on the peripheral.

Available Peripherals

Peripheral Names

IO Devices

Internal Peripherals

lmb_bram_if_cntlr

xps_bram_if_cntlr

xps_timebase_wdt

xps_timer

Add >

< Remove

Processor 1 (MicroBlaze) Peripherals

Select All

Core	Parameter
Core: xps_gpio	
FLASH	
Core: xps_mch_emc	
Hard Ethernet MAC	
Core: xps_ll_temas, User D...	
LEDs_8Bit	
Core: xps_gpio	
Push_Buttons_7Bit	
Core: xps_gpio	
RS232_Uart_0	
RS232_Uart_0	xps_uart16550
Configure Mode	Configure as UART
Use Interrupt	<input type="checkbox"/>
RS232_Uart_1	
Core: xps_uartlite, Baud Ra...	
dlmb_cntlr	
Core: lmb_bram_if_cntlr	
ilmb_cntlr	
Core: lmb_bram_if_cntlr	

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Add >

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Processor 1 (MicroBlaze) Peripherals

Select All

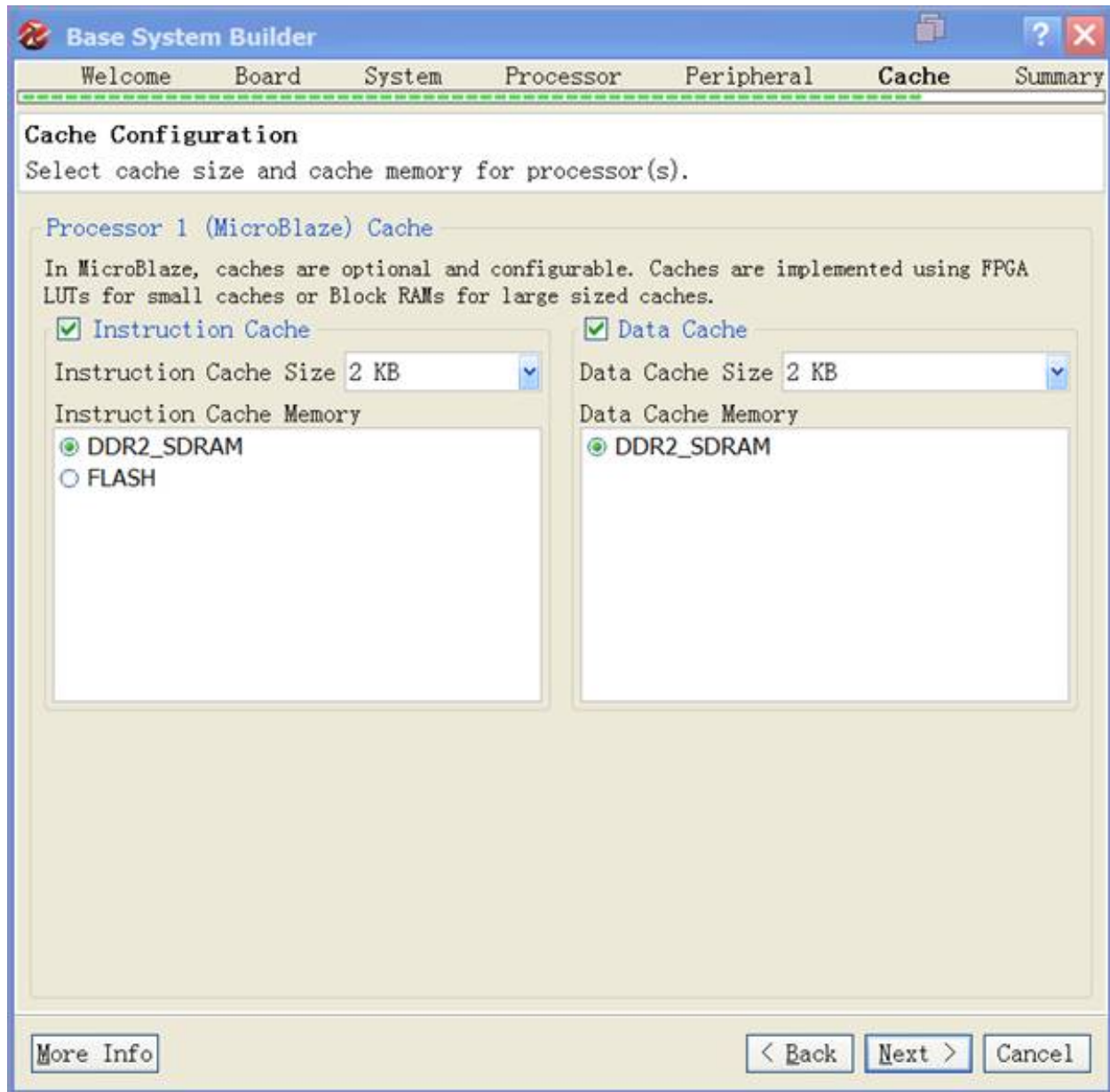
Core	Parameter
DDR2_SDRAM	Core: mpmc
DIP_Switches_8Bit	Core: xps_gpio
FLASH	Core: xps_mch_emc
Hard_Ethernet_MAC	Core: xps_ll_tomac, Use D...
LEDs_8Bit	Core: xps_gpio
Push_Buttons_7Bit	Core: xps_gpio
RS232_Uart_0	Core: xps_uart16550, Confi...
RS232_Uart_1	
RS232_Uart_1	xps_uart16550
Configure Mode	Configure as UART
Use Interrupt	<input type="checkbox"/>
dmb_cntlr	

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```
#include <stdio.h>
#include <stdlib.h>
#include "platform.h"
void print(char *str);
int main()
{
```



```
init_platform();  
print("EE152B Lab3 P02\n\r");  
char input;  
while(1)  
{  
    printf("Enter:");  
    input = getc(stdin);  
    printf("You enter:%c\n", input);  
}  
return 0;
```