

Sample :

Siul2\_Dio\_lp\_Example\_S32G274A\_M7

printf() to console can't work

■ sample setting

■ Test result

# sample setting

workspace - Siul2\_Dio\_Ip\_Example\_S32G274A\_M7/src/main.c - S32 Design Studio for S32 Platform

File Edit Source Refactor Navigate Search Project 配置工具 Run Window Help

The screenshot displays the S32 Design Studio IDE interface. The main editor window shows the source file `main.c` with the following code:

```
#include "Siul2_Port_Ip.h"
#include "Siul2_Dio_Ip.h"
#include <stdio.h>

volatile uint8 level;

void TestDelay(uint32 delay);
void TestDelay(uint32 delay)
{
    static volatile uint32 DelayTimer = 0;
    while(DelayTimer<delay)
    {
        DelayTimer++;
    }
    DelayTimer=0;
}

/**
 * @brief      Main function of the example
 * @details    Initialize the used drivers and uses the Icu
 *             and Dio drivers to toggle a LED on a push button
 */
int main(void)
{
    //uint8 i = 0U;
    /* Initialize all pins using the Port driver */
    Siul2_Port_Ip_Init(NUM_OF_CONFIGURED_PINS0, g_pin_mux_InitConfigArr0);

    //while (i++ < 10)
    while(1)
    {
        /* Dio_WriteChannel(DioConf_DioChannel_Digital_Output_LED_D78, STD_HIGH); */
        Siul2_Dio_Ip_WritePin(LED_PORT, LED_PIN, 1U);
        level = Siul2_Dio_Ip_ReadPin(LED_PORT, LED_PIN);
        //printf("the level is %d\r\n",level);
        //TestDelay(48000000);
        TestDelay(4800000);
        /* Dio_WriteChannel(DioConf_DioChannel_Digital_Output_LED_D78, STD_LOW); */
        Siul2_Dio_Ip_WritePin(LED_PORT, LED_PIN, 0U);
        level = Siul2_Dio_Ip_ReadPin(LED_PORT, LED_PIN);
        //TestDelay(48000000);
        TestDelay(4800000);
        printf("LED show \r\n");
    }

    return (0U);
}
```

The `#include <stdio.h>` line and the `printf("LED show \r\n");` line are highlighted with red boxes. The Outline view on the right shows the project structure:

- Siul2\_Port\_Ip.h
- Siul2\_Dio\_Ip.h
- stdio.h
- level : volatile uint8
- TestDelay(uint32) : void
- TestDelay(uint32) : void
- main(void) : int

### Settings

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  - Logging
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  - Tool Chain Editor
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- Project Natures
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- Build Steps
- Build Artifact
- Binary Parsers
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- Cross Settings
- Target Processor
- ▼ Standard S32DS C Compiler
  - Dialect
  - Preprocessor
  - Includes
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  - Debugging
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  - Miscellaneous
- ▼ Standard S32DS C Linker
  - General
  - Libraries
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  - Shared Library Settings
  - Link Order
- ▼ Standard S32DS Assembler
  - General
  - Preprocessor
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- ▼ Standard S32DS Create Flash Image
  - General
- ▼ Standard S32DS Print Size
  - General
- ▼ Standard S32DS C Preprocessor
  - Settings
- ▼ Standard S32DS Disassembler
  - Settings

Other target flags

Arm family

Architecture

Instruction set

Thumb interwork (-mthumb-interwork)

Endianness

Float ABI

FPU Type

Unaligned access

Libraries support

Sysroot

Restore Defaults **Apply**

**Apply and Close** Cancel



type filter text

- ✓ C/C++ Application
  - Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.elf
  - C/C++ Remote Application
- Eclipse Application
- GDB Hardware Debugging
- ✓ GDB PEMicro Interface Debugging
  - Siul2\_Dio\_Ip\_Example\_S32G274A\_M7 Debug\_RAM**
  - GDB SEGGER J-Link Debugging
- Launch Group
- Launch Group (Deprecated)
- Launch Group for S32 Debugger
- LAX Simulator
- ✓ S32 Debugger
  - Linflexd\_Uart\_Ip\_Example\_S32G274A\_M7\_Debug\_RAM\_S32Debug
  - Siul2\_Dio\_Ip\_Example\_S32G274A\_M7\_Debug\_RAM\_S32Debug
  - Spi\_Transfer\_S32G274A\_M7\_Debug\_RAM\_S32Debug
  - Uart\_Example\_S32G274A\_M7\_Debug\_RAM\_S32Debug
- S32 Debugger Flash Programmer
- VLAB Simulator Debugging

Filter matched 19 of 29 items

Name: Siul2\_Dio\_Ip\_Example\_S32G274A\_M7 Debug\_RAM

Main PEMicro Debugger Startup Source Common SVD Support OS Awareness

## Semihosting Settings

 Enable semihosting Console routed to:  Telnet  GDB client Enable Telnet console Telnet Port: 51794

## Load Symbols and Executable

 Load symbols Use project binary: Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.elf Use file:  Workspace... File System...Symbols offset (hex):  Load executable Use project binary: Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.elf Use file:  Workspace... File System...Executable offset (hex): 

## Runtime Options

 Attach to Running Target  Run on reset Set PC (absolute hex address or symbol):   Set breakpoint at: main

GDB run commands:

Revert

Apply

Debug

Close

Project Explorer

- Linflexd\_Uart\_Ip\_Example\_S32G274A\_M7: Debug\_RAM
- Siul2\_Dio\_Ip\_Example\_S32G274A\_M7: Debug\_RAM
  - Binaries
  - Includes
  - Project\_Settings
  - RTD
    - include
    - src
    - board
    - generate
    - generate/include
    - generate/src
    - src
      - main.c
  - Debug\_RAM
    - board
    - generate
    - Project\_Settings
    - RTD
    - src
      - Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.elf - [arm/le]
      - application.bin
      - blob.bin
      - makefile
      - objects.mk
      - Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.args
      - Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.bin
      - Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.map
      - sources.mk
    - include
      - description.txt
      - example\_Siul2\_Dio.mex
  - Spi\_Transfer\_S32G274A\_M7: Debug\_RAM
  - Uart\_Example\_S32G274A\_M7: Debug\_RAM

```

volatile uint8 level;

void TestDelay(uint32 delay);
void TestDelay(uint32 delay)
{
    static volatile uint32 DelayTimer = 0;
    while(DelayTimer<delay)
    {
        DelayTimer++;
    }
    DelayTimer=0;
}

/**
 * @brief      Main function of the example
 * @details    Initialize the used drivers and uses the Icu
 *             and Dio drivers to toggle a LED on a push button
 */
int main(void)
{
    //uint8 i = 0U;
    /* Initialize all pins using the Port driver */
    Siul2_Port_Ip_Init(NUM_OF_CONFIGURED_PINS0, g_pin_mux_InitConfigArr0);

    //while (i++ < 10)
    while(1)
    {
        /* Dio_WriteChannel(DioConf_DioChannel_Digital_Output_LED_D78, STD_HIGH); */
        Siul2_Dio_Ip_WritePin(LED_PORT, LED_PIN, 1U);
        level = Siul2_Dio_Ip_ReadPin(LED_PORT, LED_PIN);
        //printf("the level is %d\r\n",level);
        //TestDelay(48000000);
        TestDelay(4800000);
    }
}

```

Outline

- Siul2\_Port\_Ip.h
- Siul2\_Dio\_Ip.h
- studio.h
- level : volatile uint8
- TestDelay(uint32) : void
- TestDelay(uint32) : void
- main(void) : int

CDT Global Build Console

text	data	bss	dec	hex	filename
287380	0	12288	299668	49294	Siul2_Dio_Ip_Example_S32G274A_M7.elf

Finished building: Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.siz  
Finished building: Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.bin

10:27:57 Build Finished. 0 errors, 0 warnings. (took 1s.352ms)

10:28:45 \*\*\*\* Incremental Build of configuration Debug\_RAM for project Siul2\_Dio\_Ip\_Example\_S32G274A\_M7 \*\*\*\*

```

make -j8 all
Invoking: Standard S32DS Print Size
arm-none-eabi-size --format=berkeley Siul2_Dio_Ip_Example_S32G274A_M7.elf
text  data  bss  dec  hex filename
287380  0  12288  299668  49294 Siul2_Dio_Ip_Example_S32G274A_M7.elf
Finished building: Siul2_Dio_Ip_Example_S32G274A_M7.siz

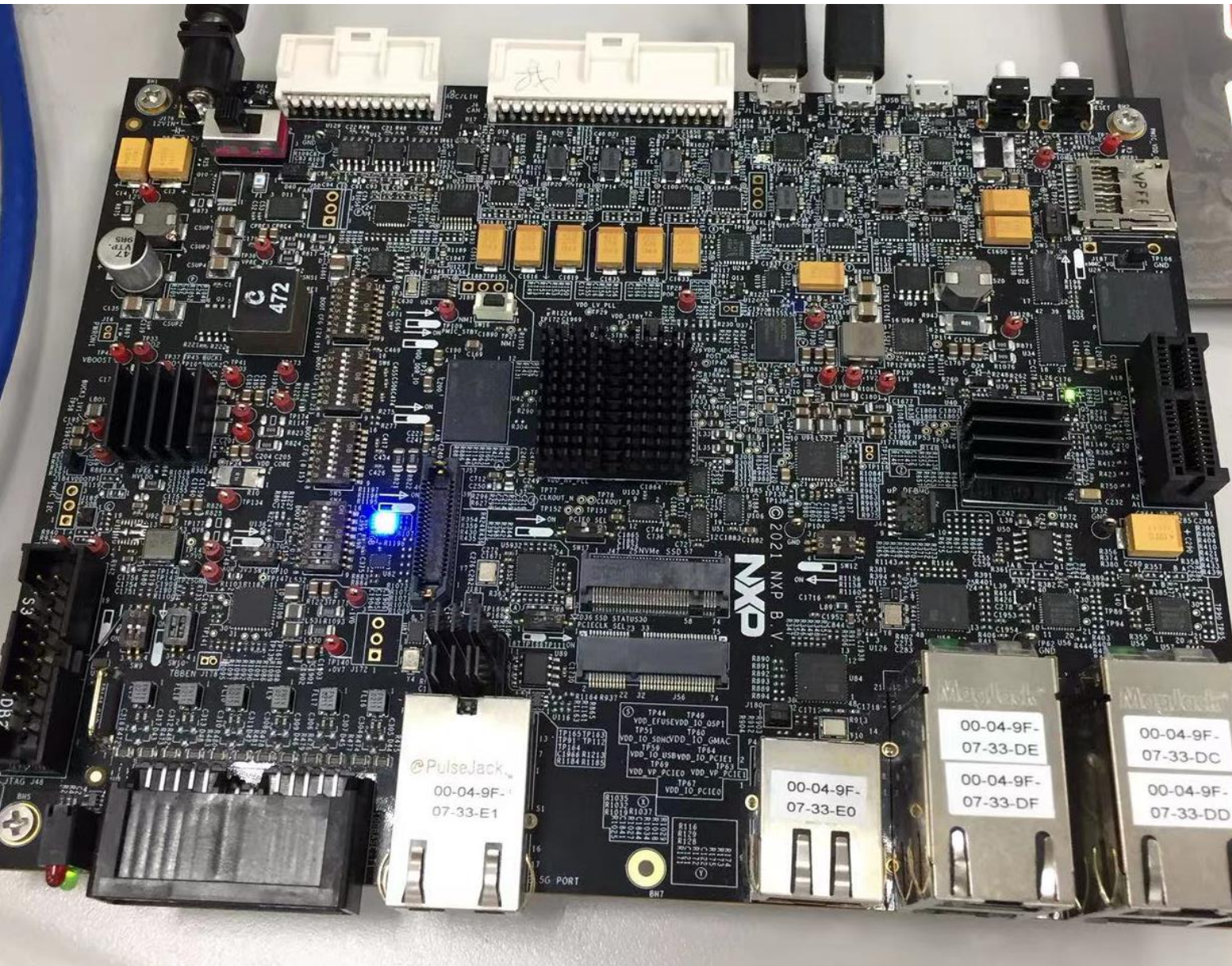
```

10:28:45 Build Finished. 0 errors, 0 warnings. (took 341ms)

- 1 CDT Global Build Console
- 2 CDT Build Console [Siul2\_Dio\_Ip\_Example\_S32G274A\_M7]
- 3 FreeRTOS Task Aware Debugger Console version 1.0.8 (201810241449)

Dashboard

- Project Creation
  - S32DS Application Project
  - S32DS Library Project
- Build/Debug
  - Build (All)
  - Clean (All)
  - Debug
- Settings
  - Project
  - Build se
  - Debug



1. Download bin file to norflash
2. The function isn't ok. It shall on and off but it is only on.

Project Explorer

- Linflexd\_Uart\_Ip\_Example\_S32G274A\_M7: Debug\_RAM
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  - Binaries
  - Includes
  - Project\_Settings
  - RTD
    - include
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      - Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.args
      - Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.bin
      - Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.map
      - sources.mk
    - include
      - description.txt
      - example\_Siul2\_Dio.mex
  - Spi\_Transfer\_S32G274A\_M7: Debug\_RAM
  - Uart\_Example\_S32G274A\_M7: Debug\_RAM

```
main.c Mcu.h Uart.c Uart_Ipw.c System_Ip.c Siul2_Port_Ip.c main.c studio.h Siul2_Dio_Ip... main.c 39
```

```
while(1)
{
    /* Dio_WriteChannel(DioConf_DioChannel_Digital_Output_LED_D78, STD_HIGH); */
    Siul2_Dio_Ip_WritePin(LED_PORT, LED_PIN, 1U);
    level = Siul2_Dio_Ip_ReadPin(LED_PORT, LED_PIN);
    //printf("the level is %d\r\n",level);
    //TestDelay(4800000);
    TestDelay(4800000);
    /* Dio_WriteChannel(DioConf_DioChannel_Digital_Output_LED_D78, STD_LOW); */
    Siul2_Dio_Ip_WritePin(LED_PORT, LED_PIN, 0U);
    level = Siul2_Dio_Ip_ReadPin(LED_PORT, LED_PIN);
    //TestDelay(4800000);
    TestDelay(4800000);
    printf("LED show \r\n");
}

return (0U);
}

#ifdef __cplusplus
}
```

Problems Tasks Console Properties Terminal Search

CDT Global Build Console

Finished building: ../Project\_Settings/Startup\_Code/startup\_cm7.s

Building target: Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.elf  
Invoking: Standard S32DS C Linker  
arm-none-eabi-gcc -o "Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.elf" "@Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.args"  
Finished building target: Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.elf

Invoking: Standard S32DS Create Flash Image  
Invoking: Standard S32DS Print Size  
arm-none-eabi-objcopy -O binary Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.elf "Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.bin"  
arm-none-eabi-size --format=berkeley Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.elf

text	data	bss	dec	hex	filename
287380	0	12288	299668	49294	Siul2_Dio_Ip_Example_S32G274A_M7.elf

Finished building: Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.siz  
Finished building: Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.bin

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make -j8 all  
Invoking: Standard S32DS Print Size  
arm-none-eabi-size --format=berkeley Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.elf

text	data	bss	dec	hex	filename
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Finished building: Siul2\_Dio\_Ip\_Example\_S32G274A\_M7.siz

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  - Build (All)
  - Clean (All)
  - Debug
- Settings
  - Project
  - Build se
  - Debug

10:28:45 Build Finished. 0 errors, 0 warnings. (took 341ms)

No message of "LED show"