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1.MCU 集成开发环境



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2. 基于 NXP 的 Keil 开发环境搭建



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2.1.下载并安装 Keil

Keil IDE 在网上有许多破解版，在这里不做过多阐述，如果有能力请支持正版！



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2.2.下载 Keil SDK

[SDK 下载地址](#)

Step 1.进入下载地址,搜索你要下载芯片的 SDK, 这里以 MKV30F64xxx10 为例, 选择 MKV30F64xxx10, 右方会显示该芯片的信息, 然后点击 Build MCUXpresso SDK

Hardware Details	
Included Part Numbers	MKV30F64VLF10, MKV30F64VFM10, MKV30F64VLH10
Board(s)	TWR-KV31F120M, FRDM-KV31F
Device	MKV30F12810
Core Type / Max Freq	Cortex-M4F / 100MHz
Device Memory Size	64 KB Flash 16 KB RAM

Actions

- Build MCUXpresso SDK
- ⌚ Explore selection with Clocks tool
- .Pin Explore selection with Pins tool

Step 2.选择 Windows 主机系统, 下载的工具链为 Keil MDK, 组件默认即可, 若有特别的组件需求可自己添加进去, 点击 Download SDK

Developer Environment Settings

Selections here will impact files and examples projects included in the SDK and Generate

Host OS

Windows ▾

Toolchain / IDE

Keil MDK ▾

Select Optional Middleware

Add middleware, operating systems, and software libraries to your SDK.

+ Add software component

This MCUXpresso SDK configuration is available for direct download

Download SDK

Archive Name

SDK_2.5.0_MKV30F64xxx10

Don't use: <, >, :, ", /, |, ?, *, \ in the name
of your SDK

Step 3.点击 I Agree

SDK Downloads

x

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2.3. 下载 Package

[Package 下载地址](#)

Step 1. 搜索你要下载的 arm 芯片，在这里以 NXP MKV30F64xxx10 为例

arm KEIL

Products Download Events Support

MDK5 - NXP MKV30F64xxx10 Go

Step 2. 选择 MD5-NXP MKV30F64xxx10

MDK5 - NXP MKV30F64xxx10

Results 1-2 of 2

[MDK5 - NXP MKV30F64xxx10](#)

Distributors Home / MDK5 Device List / MKV30F64xxx10 NXP MKV30
our cookies.

<http://www.keil.com/dd2/nxp/mkv30f64xxx10/>

Step 3. 页面右下角下载 Pack，点击 Download

Device Family Pack

DFP

Support for this device is contained in:

Device Family Pack for MKV30F12810

 Download

Step 4. 点击 OK

Notice

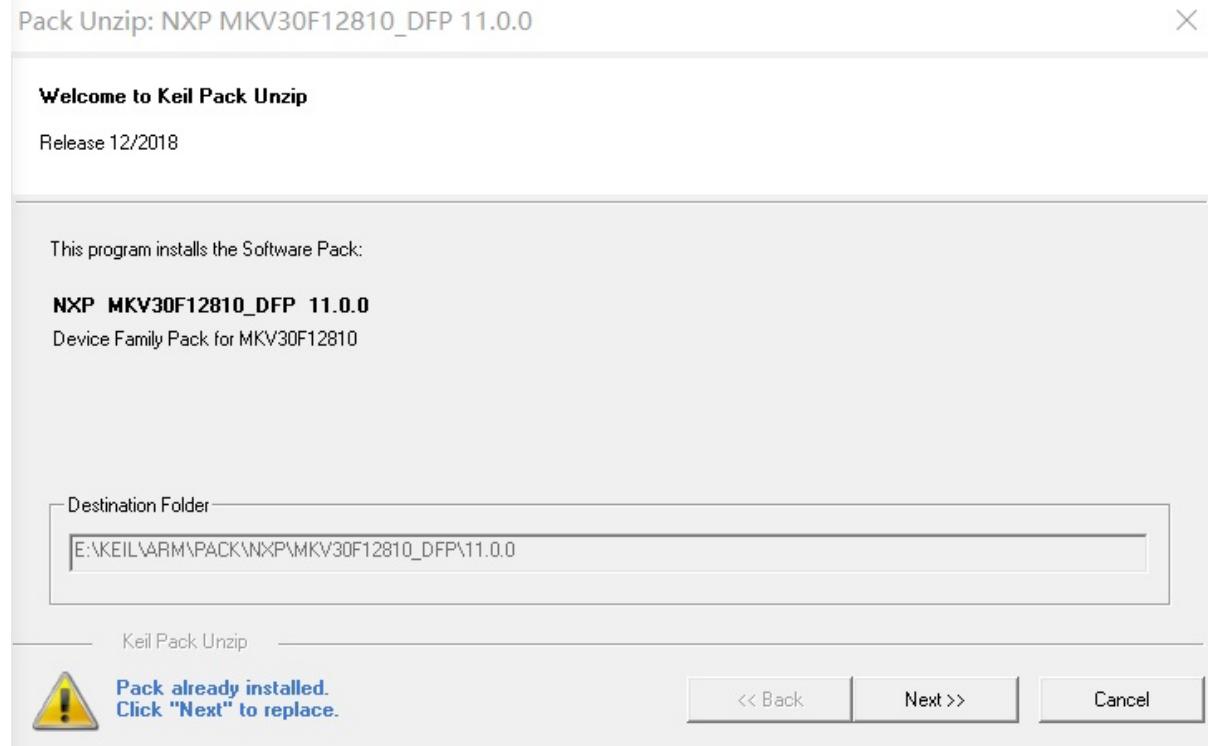
You are now leaving www.keil.com to download NXP.MKV30F12810_DFP.11.0.0.pack from here:

http://mcuxpresso.nxp.com/cmsis_pack/repo/NXP.MKV30F12810_DFP.11.0.0.pack

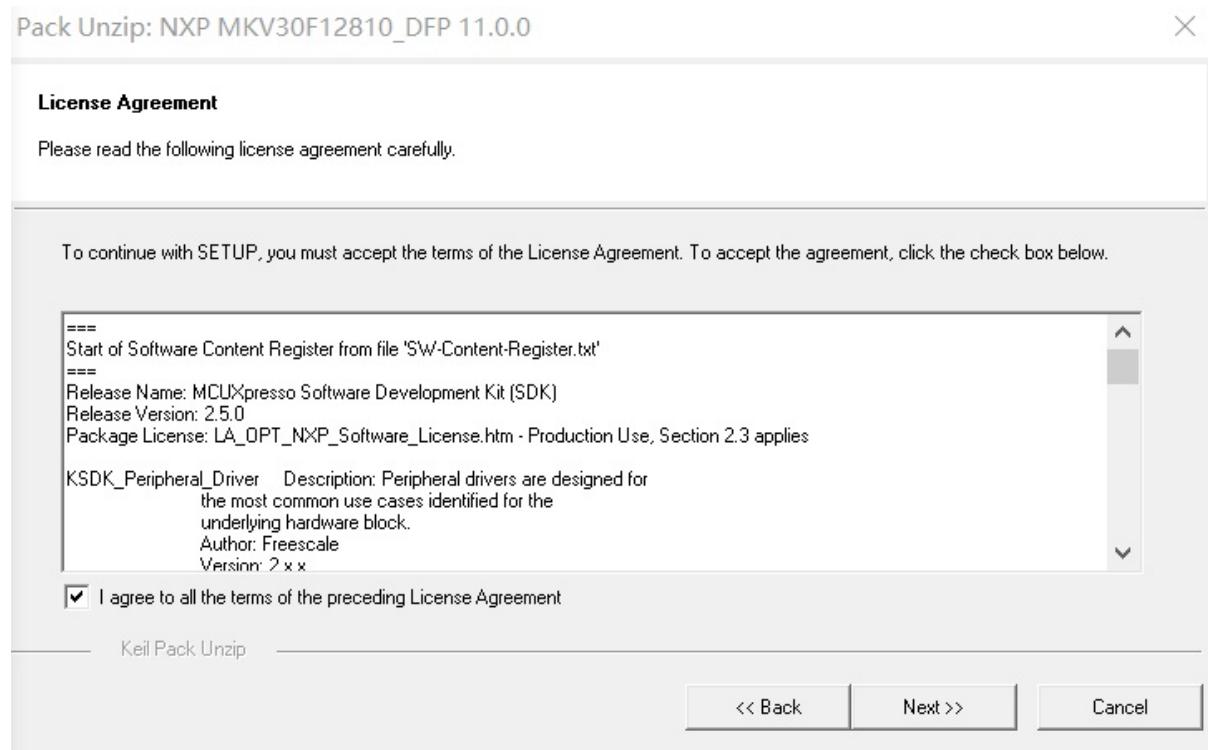
Click 'OK' to proceed and 'Cancel' to abort.

OK **Cancel**

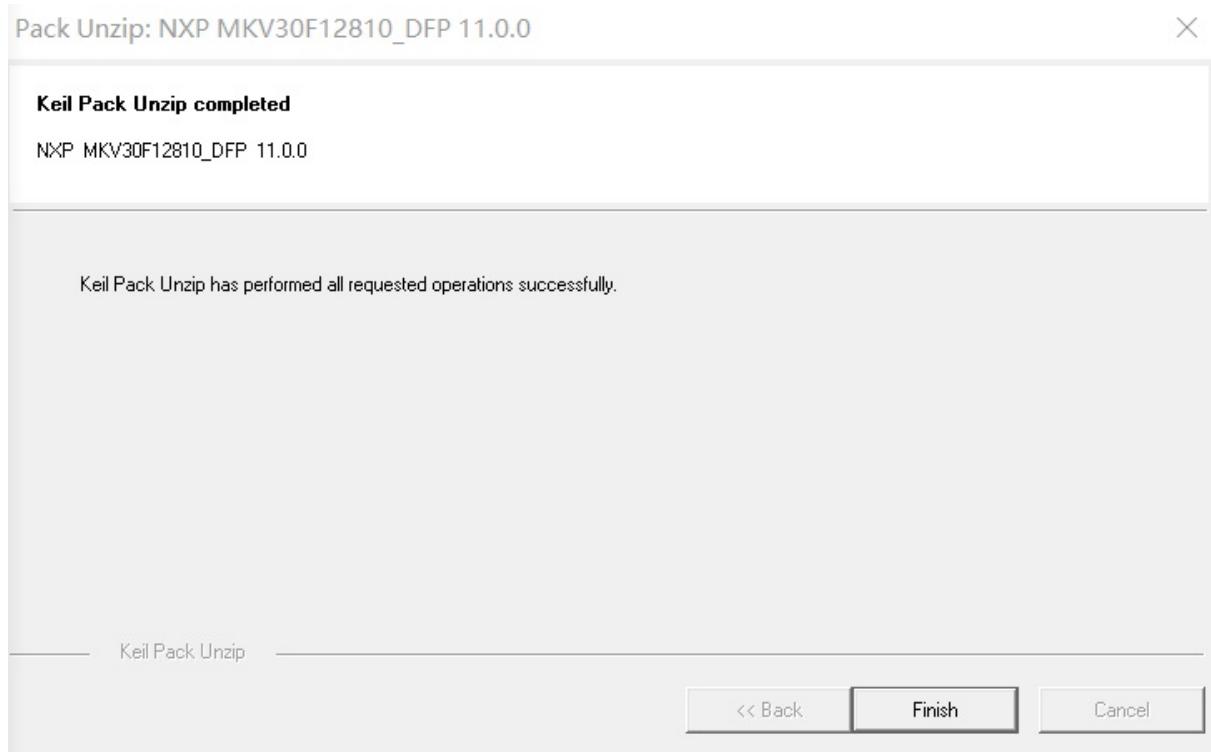
Step 5. 打开下载好的 Pack，它会自动搜寻你的 Keil 路径，点击 Next



Step 6.选择 I agree, 点击 Next



Step 7.点击 Finish

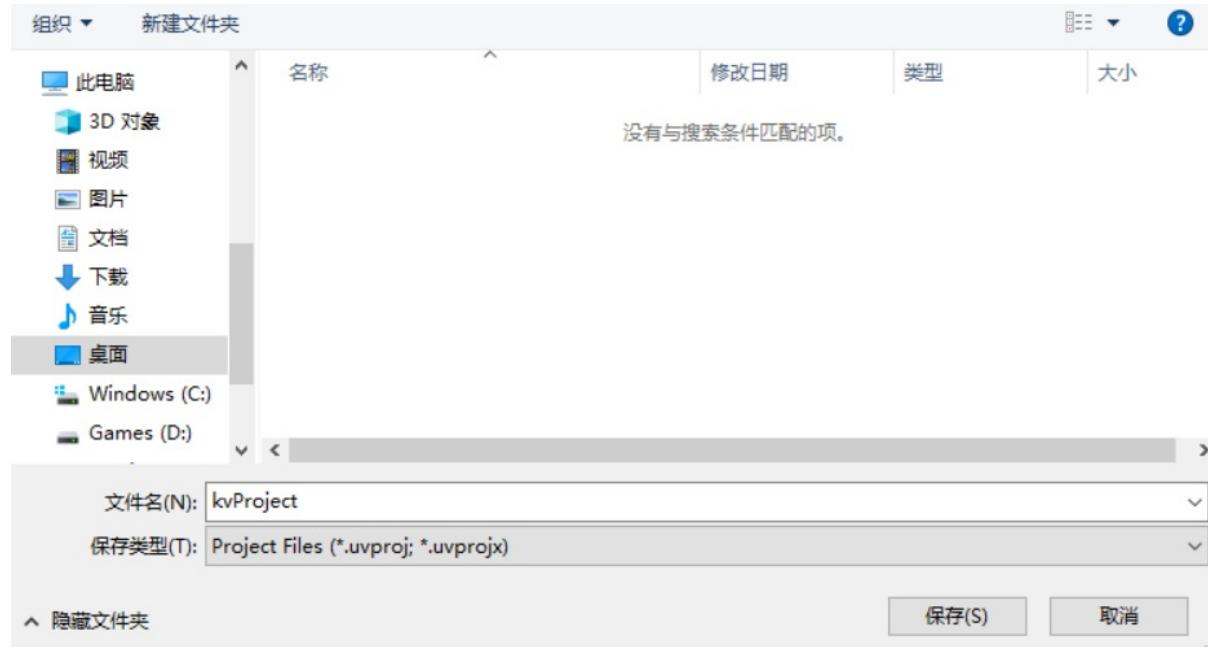




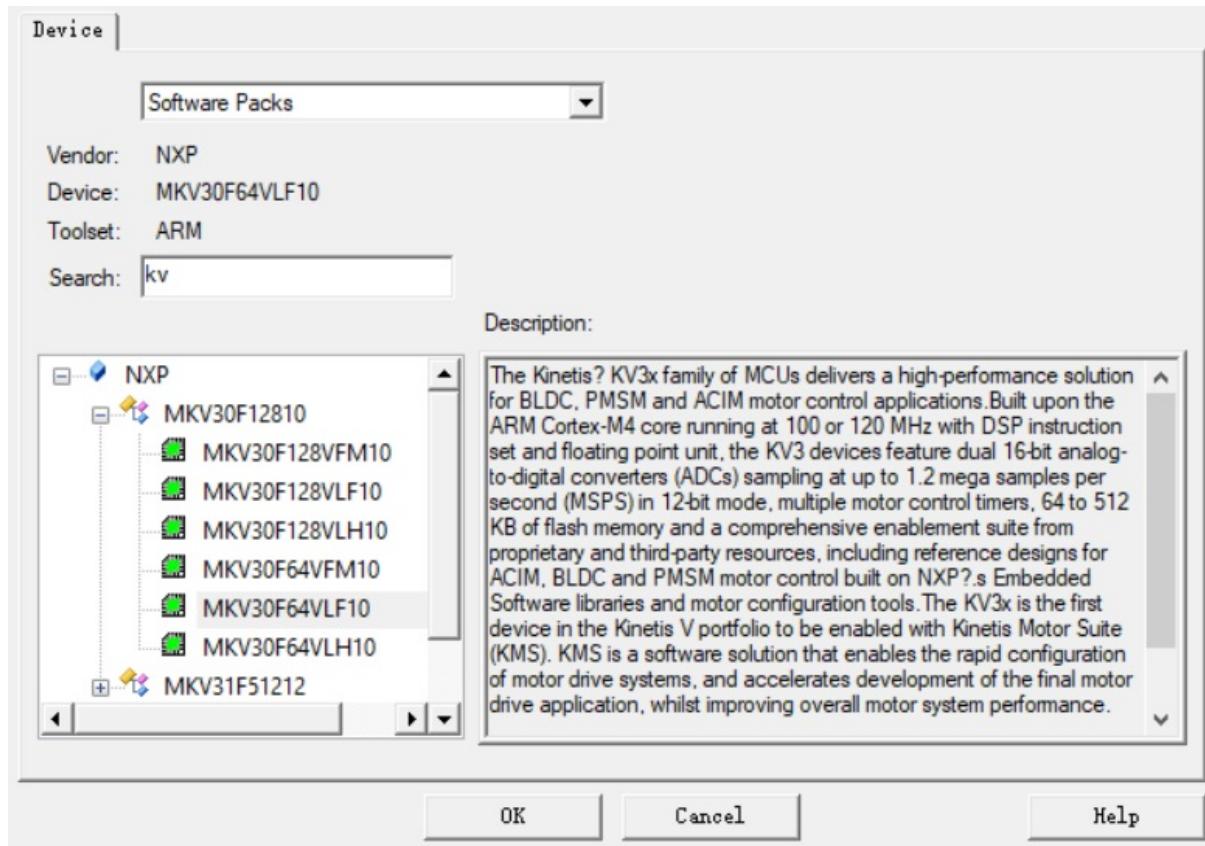
2.4.Keil 工程搭建

Step 1.在指定位置新建工程文件夹，指定名字为 kv30Project

Step 2.双击下载好的 Keil，点击工具栏 Project -> New uVision Project...，保存你的工程文件到上一步新建的工程文件夹中，取名为 kv30Project



Step 3.在这里使用的是 MKV30F64VLF10



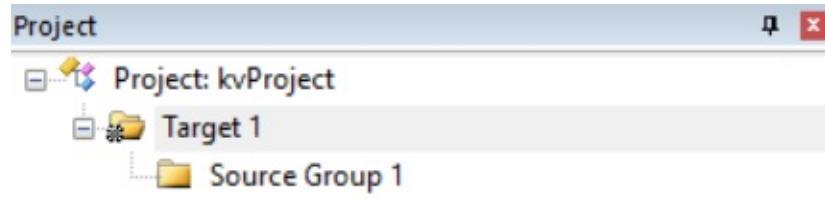
Step 4.点击 OK

Software Component	Sel.	Variant	Version	Description
Board Support				Generic Interfaces for Evaluation and Development Boards
CMSIS				Cortex Microcontroller Software Interface Components
CMSIS Driver				NXP MCUXpresso SDK Peripheral CMSIS Drivers
Compiler		ARM Compiler	1.2.0	Compiler Extensions for ARM Compiler 5 and ARM Compiler 6 Startup_System_Setup
Device		MDK-Pro	6.9.8	File Access on various storage devices
File System		MDK-Pro	5.36.6	User Interface on graphical LCD displays
Graphics		MDK-Pro	7.5.0	IPv4/IPv6 Networking using Ethernet or Serial protocols
Network		MDK-Pro	6.11.0	USB Communication with various device classes
USB				

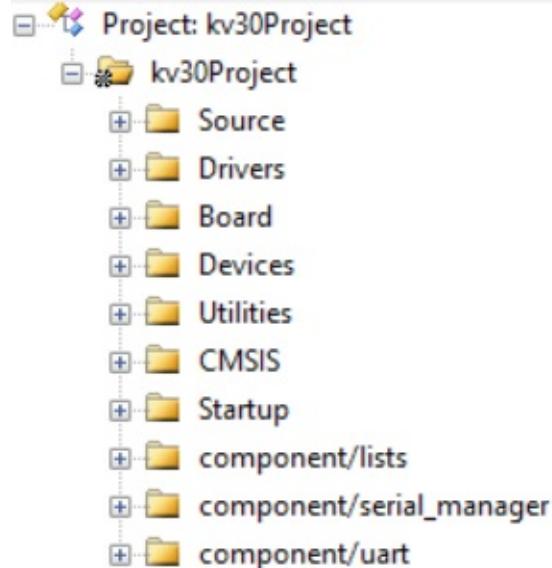


2.4.1.添加目录结构树

Step 1.左边的工程结构树如下，修改结构树，鼠标点击结构树文件夹名称，再单击一次文件夹名称则可以重命名，在结构树文件夹右键 Add Group 则可以添加文件夹



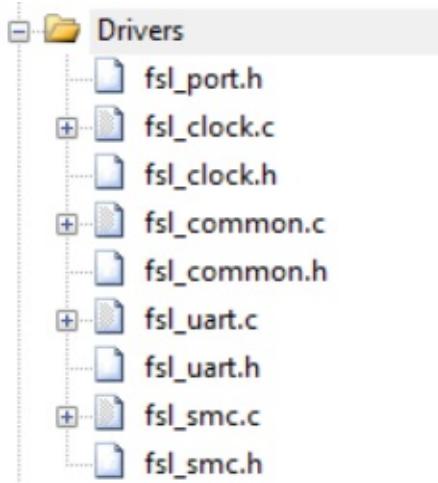
Step 2.工程结构树修改完成，如图



Step 3.将下载的 SDK 解压，并将 SDK 根目录下的 components、CMSIS、devices/MKV30F12810 复制到新建的工程文件夹下，如图

名称	修改日期	类型
MKV30F12810	2019/4/3 18:21	文件夹
CMSIS	2019/4/3 18:31	文件夹
components	2019/4/3 18:34	文件夹

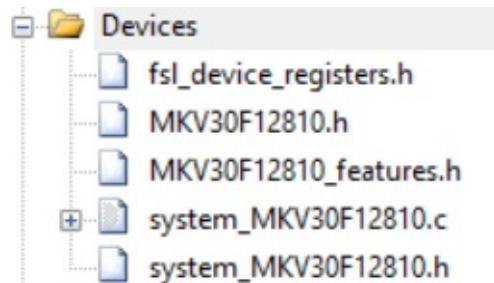
Step 4.双击工程结构树的 Drivers 文件夹，添加以下文件，文件位于 ./MKV30F12810/drivers



Step 5.双击工程结构树的 Board 文件夹, 添加以下文件, 文件位于 ./MKV30F12810/project_template

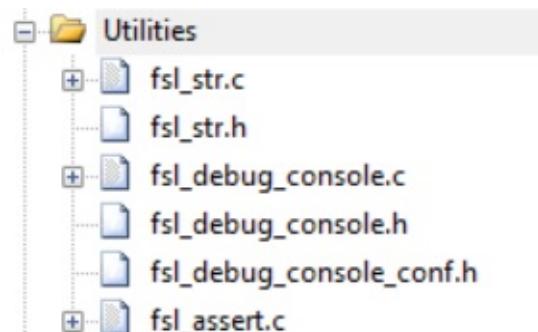


Step 6.双击工程结构树的 Devices 文件夹, 添加以下文件, 文件位于 ./MKV30F12810

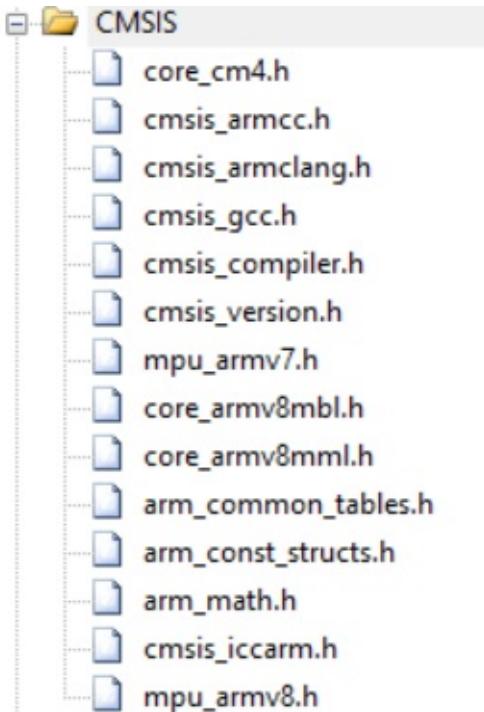


Step 7.双击工程结构树的 Utilities 文件夹, 添加以下文件, 文件位于

./MKV30F12810/utilities、./MKV30F12810/utilities/debug_console、./MKV30F12810/utilities/str



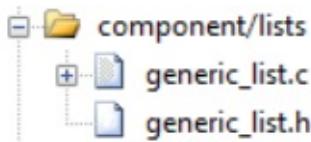
Step 8.双击工程结构树的 CMSIS 文件夹, 添加以下文件, 文件位于 ./CMSIS/Include



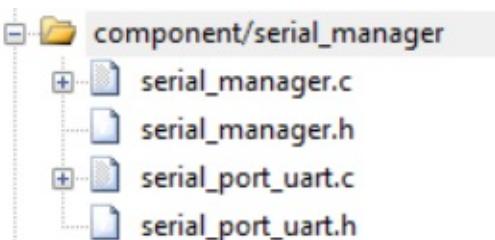
Step 9.双击工程结构树的 Startup 文件夹, 添加以下文件, 文件位于 ./MKV30F12810/arm



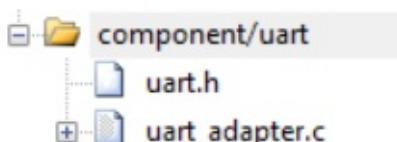
Step 10.双击工程结构树的 component/lists 文件夹, 添加以下文件, 文件位于 ./components/lists



Step 11.双击工程结构树的 component/serial_manager 文件夹, 添加以下文件, 文件位于 ./components/serial_manager



Step 12.双击工程结构树的 component/uart 文件夹, 添加以下文件, 文件位于 ./components/uart





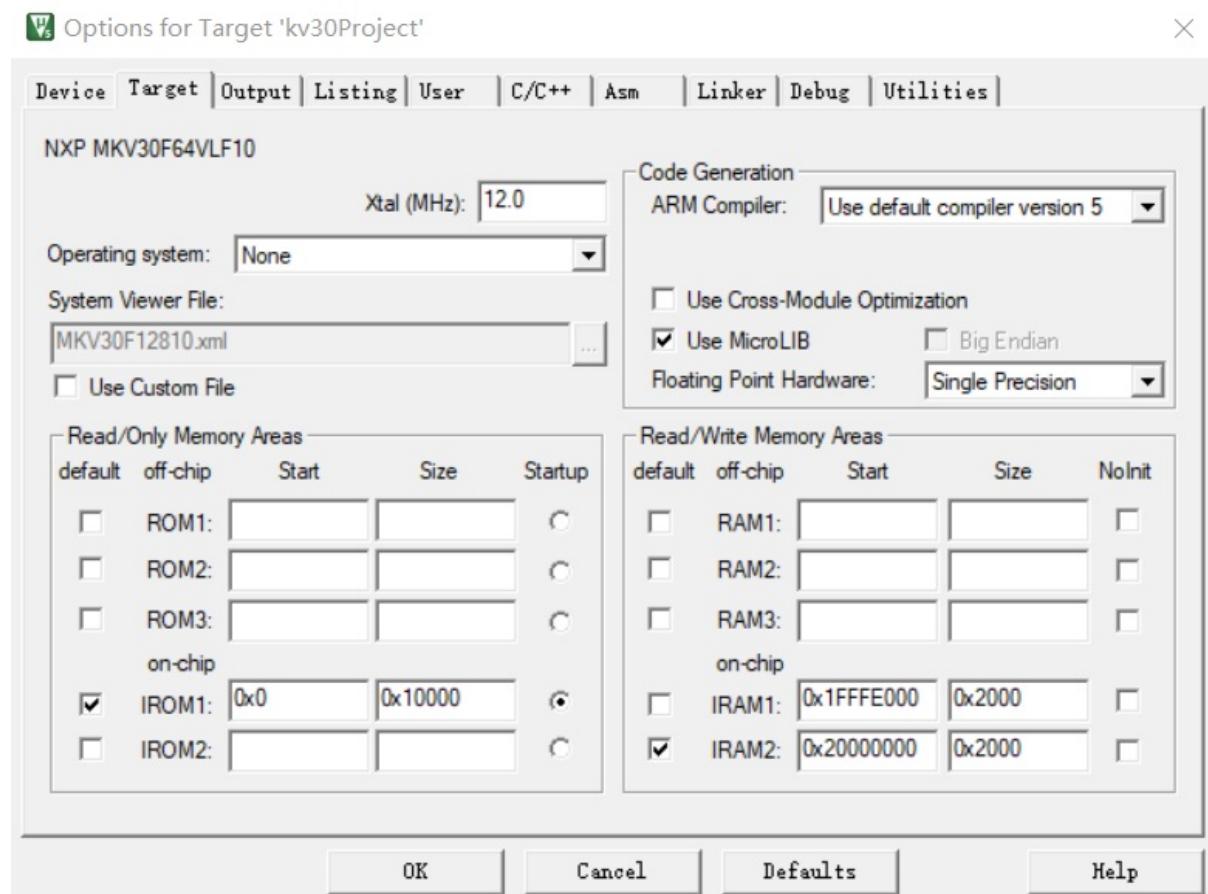
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2.4.2.修改 Options

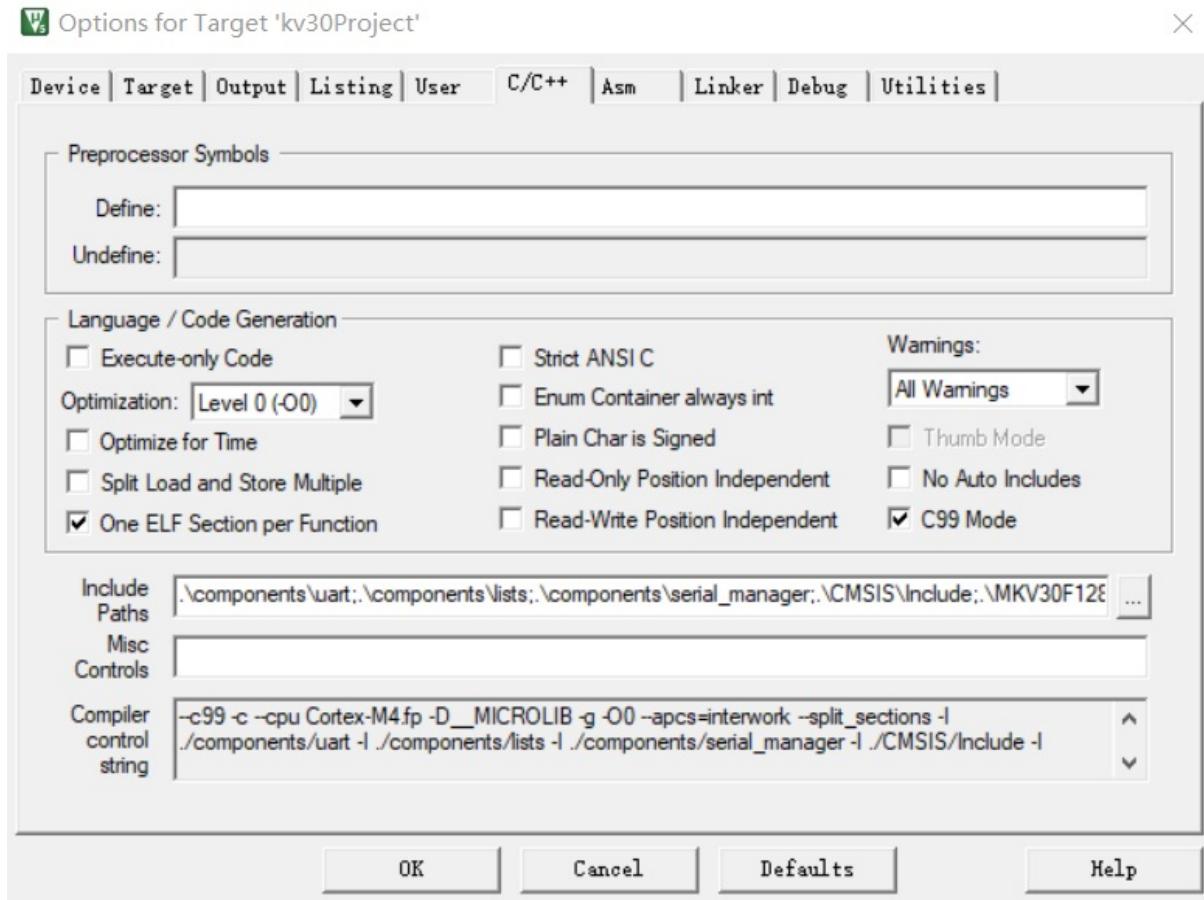
Step 1.点击上方工具栏的 Option 按钮



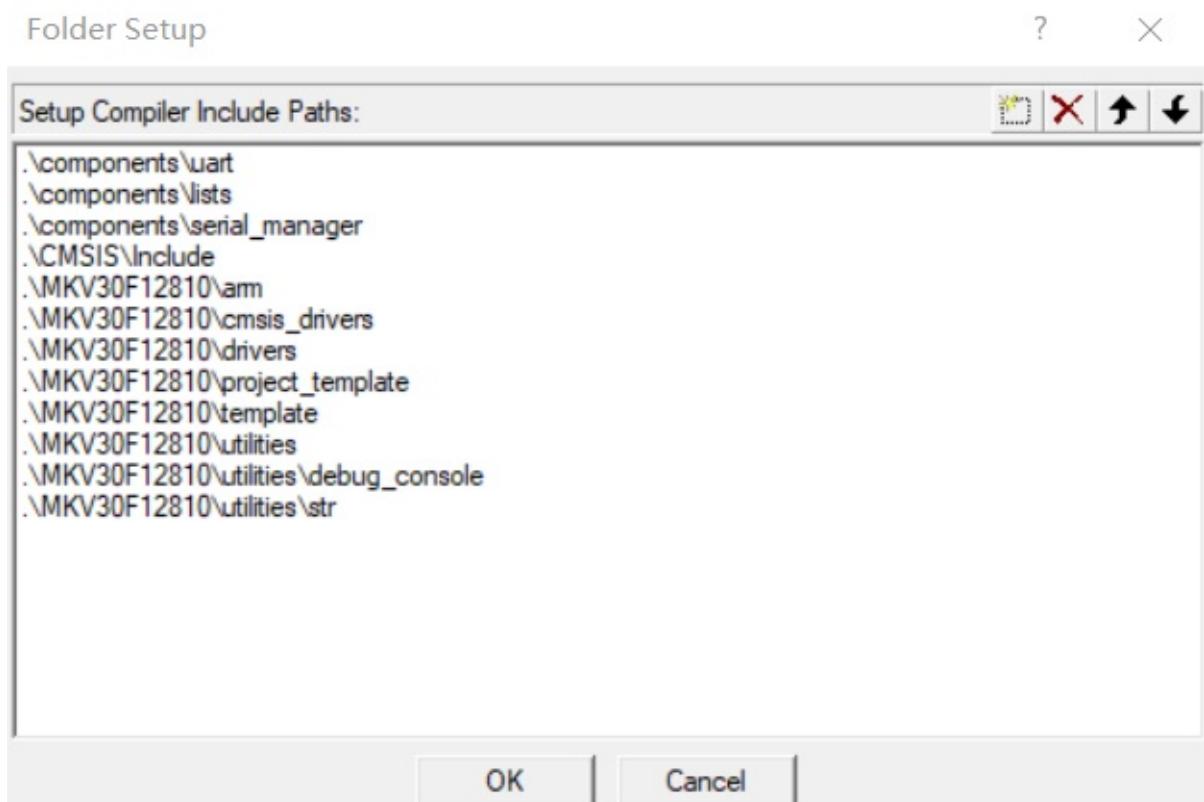
Step 2.选择 Target 子窗口，勾选上 Use MicroLIB



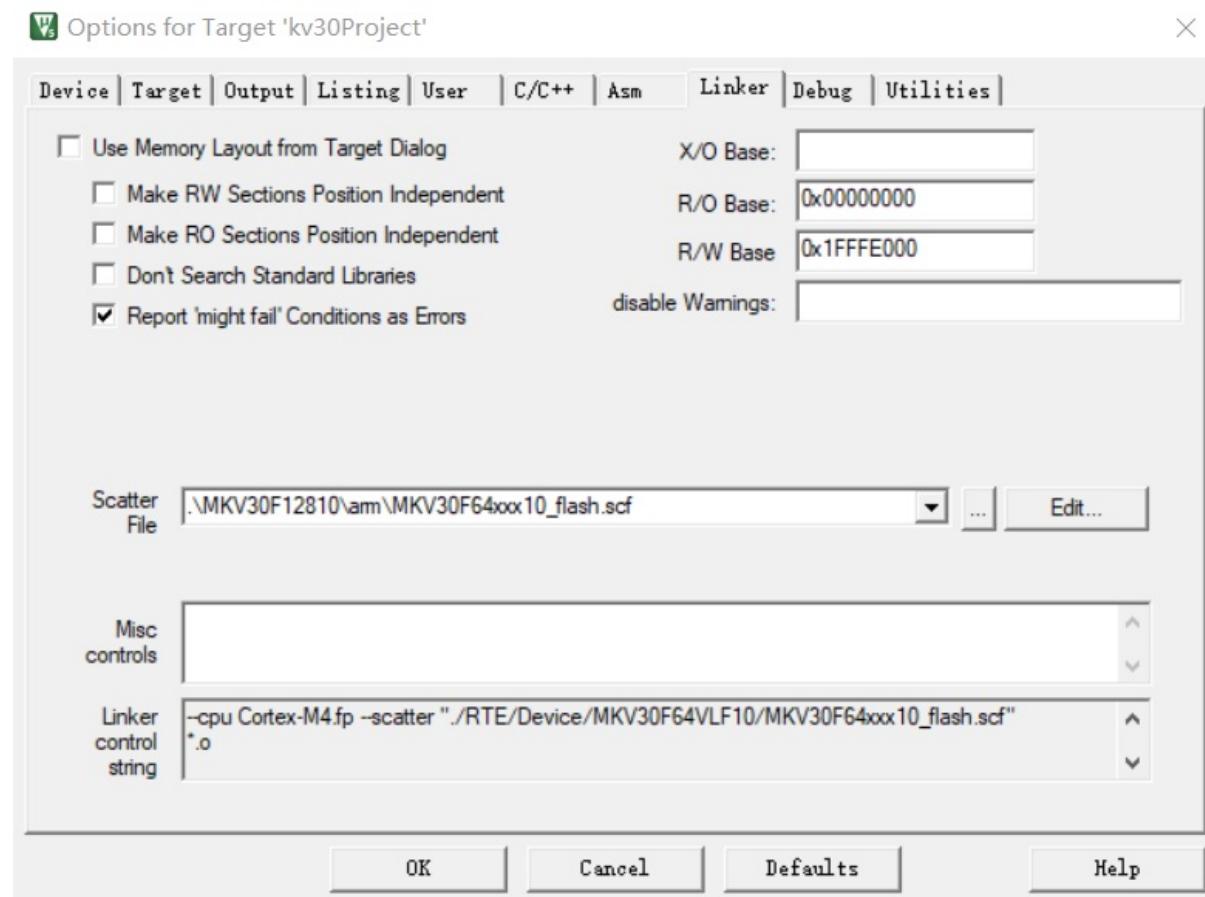
Step 3.选择 C/C++ 子窗口，Misc Controls 添加以下参数



Step 4.选择 C/C++ 子窗口，Include Paths 添加以下路径



Step 5.选择 Linker 子窗口，取消勾选 Use Memory Layout from Target Dialog，修改 Scatter File，添加 .scf 文件，文件路径位于 ./MKV30F12810/arm/MKV30F64xxx10_flash.scf





2.4.3. 使用 MCUXpresso Config Tools 生成时钟、引脚文件

生成配置外部晶振的时钟文件

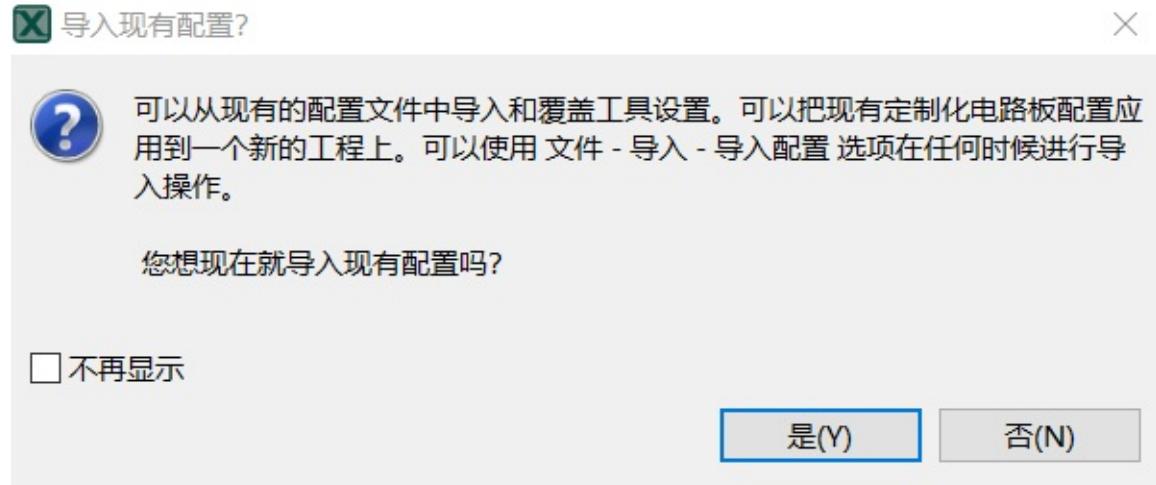
Step 1. 打开 MCUXpresso Config Tools，选择为处理器，电路板，和套件创建新配置，点击下一步



Step 2. 查询你配置的芯片，在这里为 MKV30F64xxx，封装为 MKV30F64VLF10 - LQFP 48 封装



Step 3. 点击否



Step 4. 点击工具栏：工具-> 时钟，该芯片默认配置为内部时钟，点击外部 OSC 的 Inactive 框

时钟源		
名称	可	值
内部		
FAST_IRCLK		4 MHz
SLOW_IRCLK		32.768 kHz
IRC48M		Inactive
LPO		1 kHz
外部		
OSC (System Oscillator)	<input type="checkbox"/>	Inactive

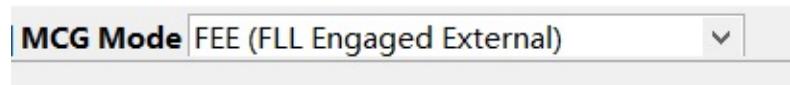
Step 5. 输入芯片的外部晶振参数，在这里使用的是无源的 8MHz 晶振，点击 OK



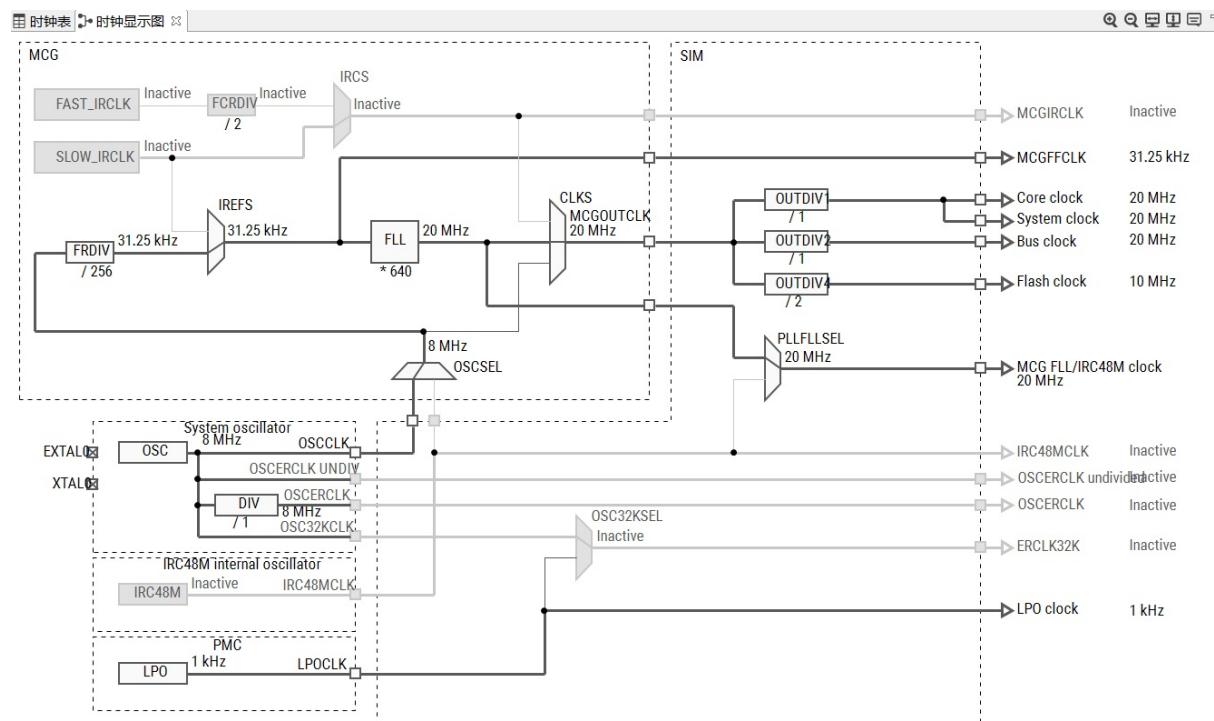
Step 6. 将外部 OSC 下拉框展开，OSC mode 选择 Using oscillator with external crystal(low power)，Frequency Range 选择 High frequency range 3-8 MHz，System Osc.Capacity Load 选择 0pF (芯片内部晶振的负载电容)

外部	
OSC (System Oscillator)	<input checked="" type="checkbox"/> 8 MHz
OSC mode	Using oscillator...tal (low power)
Frequency Range	High frequency range 3-8 MHz
System O...ty Load	0 pF

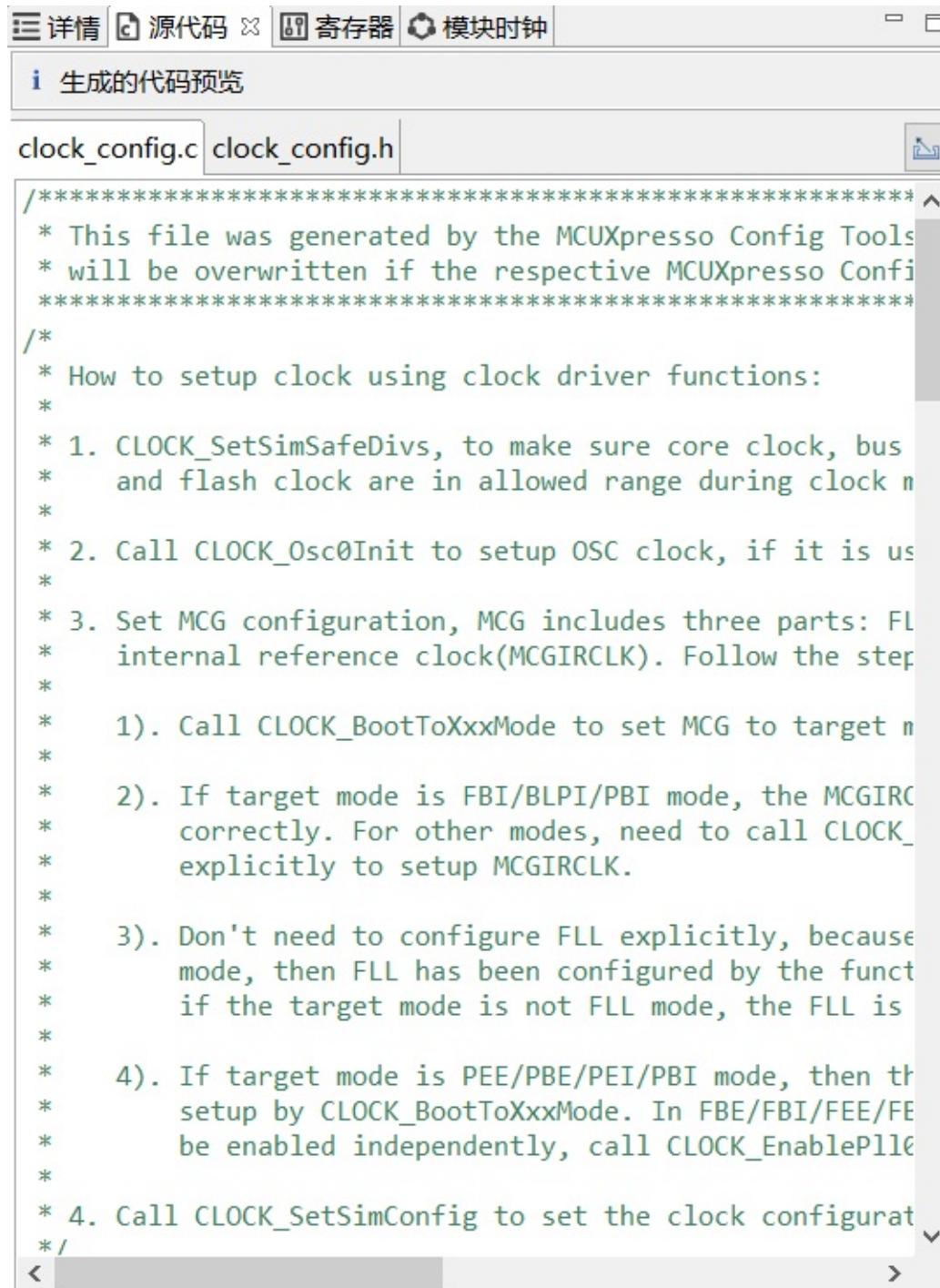
Step 7. 工具栏的 MCG Mode 从 FEI 模式切换成 FEE 模式



Step 8. 观察时钟显示图，时钟已配置成外部晶振输入



Step 9. 右方工具栏点击源代码，可查看自动生成的时钟代码文件，右方有个导出按钮，将时钟的.c 和 .h 文件导出到指定目录



The screenshot shows the MCUXpresso Config Tools interface with the 'Generated code preview' tab selected. The code editor displays two files: `clock_config.c` and `clock_config.h`. The `clock_config.h` file contains the following generated code:

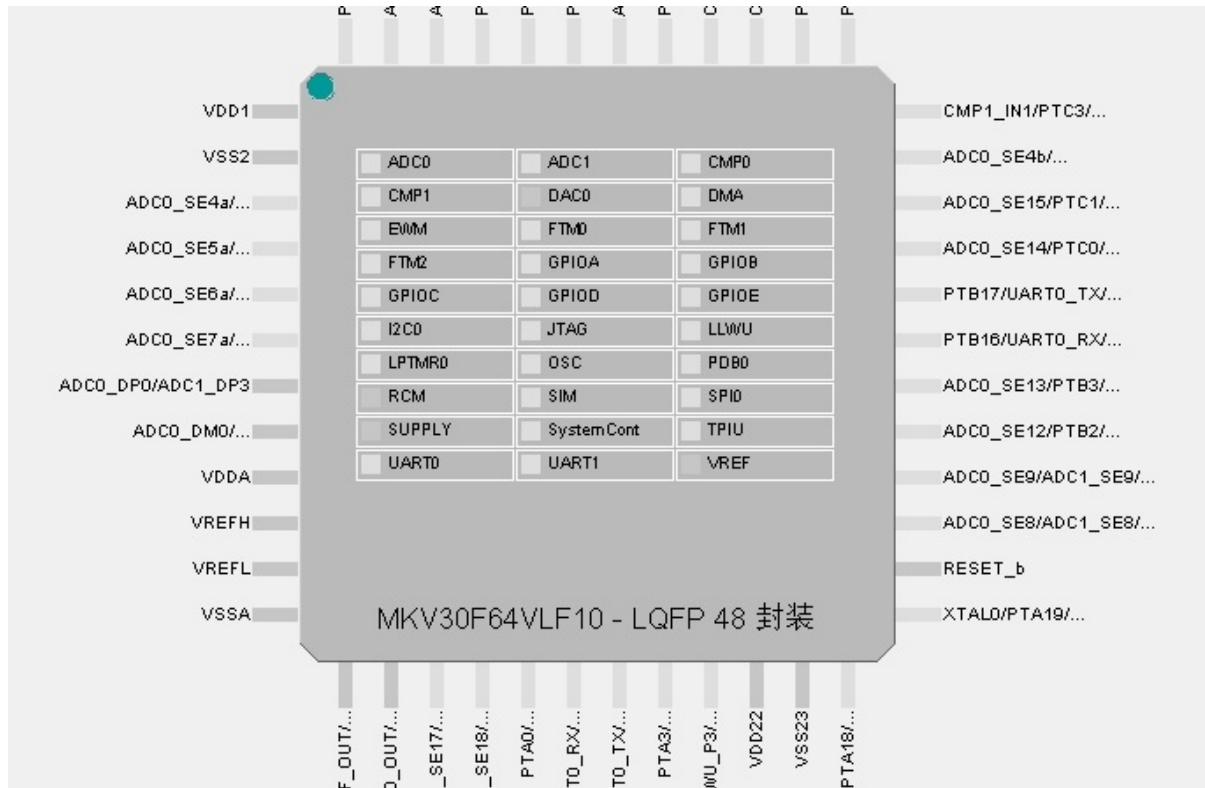
```

/*
 * This file was generated by the MCUXpresso Config Tools
 * will be overwritten if the respective MCUXpresso Config
 */
/*
 * How to setup clock using clock driver functions:
 *
 * 1. CLOCK_SetSimSafeDivs, to make sure core clock, bus
 *    and flash clock are in allowed range during clock n
 *
 * 2. Call CLOCK_Osc0Init to setup OSC clock, if it is us
 *
 * 3. Set MCG configuration, MCG includes three parts: FL
 *    internal reference clock(MCGIRCLK). Follow the step
 *
 *   1). Call CLOCK_BootToXxxMode to set MCG to target m
 *
 *   2). If target mode is FBI/BLPI/PBI mode, the MCGIRC
 *      correctly. For other modes, need to call CLOCK_
 *      explicitly to setup MCGIRCLK.
 *
 *   3). Don't need to configure FLL explicitly, because
 *      mode, then FLL has been configured by the funct
 *      if the target mode is not FLL mode, the FLL is
 *
 *   4). If target mode is PEE/PBE/PEI/PBI mode, then th
 *      setup by CLOCK_BootToXxxMode. In FBE/FBI/FEE/FE
 *      be enabled independently, call CLOCK_EnablePlle
 *
 * 4. Call CLOCK_SetSimConfig to set the clock configurat
 */

```

生成串口输出引脚文件

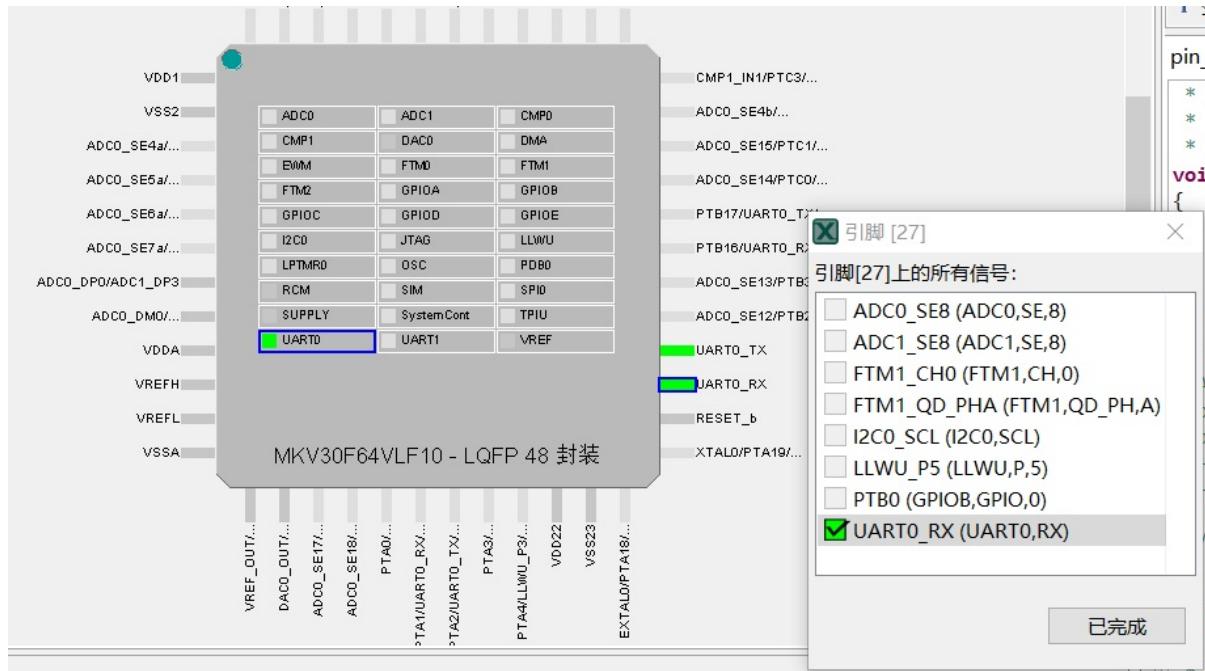
Step 1. 点击工具栏：工具->引脚， 默认所有引脚都不配置



Step 2. 这里要配置 TX 串口引脚，该芯片的扩展串口 TX 为 PTB1，点击该引脚然后勾选 UART0_TX，点击已完成



Step 3. 这里要配置 RX 串口引脚，该芯片的扩展串口 RX 为 PTB0，点击该引脚然后勾选 UART0_RX，点击已完成



Step 4. 点击左方工具栏的源代码，可查看生成的引脚配置文件，点击右方的导出按钮，导出到指定文件夹

寄存器 源代码

生成的代码预览

```

pin_mux.c pin_mux.h

/* Description : Calls initialization functions.
 *
 * END ****
void BOARD_InitBootPins(void)
{
    BOARD_InitPins();
}

/* clang-format off */
/*
 * TEXT BELOW IS USED AS SETTING FOR TOOLS ****
BOARD_InitPins:
- options: {callFromInitBoot: 'true', coreID: core0, enableClock: 'true'}
- pin_list:
    - {pin_num: '28', peripheral: UART0, signal: TX, pin_signal: ADC0_SE9/ADC1_SE9/PTB1/I2C0_SCL}
    - {pin_num: '27', peripheral: UART0, signal: RX, pin_signal: ADC0_SE8/ADC1_SE8/PTB0/LLWU_P5}
    * BE CAREFUL MODIFYING THIS COMMENT - IT IS YAML SETTINGS FOR TOOLS ****
*/
/* clang-format on */

/* FUNCTION ****
*
* Function Name : BOARD_InitPins
* Description   : Configures pin routing and optionally pin electrical features.
*
* END ****
void BOARD_InitPins(void)
{
    /* Port B Clock Gate Control: Clock enabled */
    CLOCK_EnableClock(kCLOCK_PortB);
}

```




2.4.4.HelloWord 示例

将工程结构树 Board 中的 pin_mux.c、pin_mux.h、clock_config.c、clock_config.h 文件替换成 MCUXpresso Config Tools 生成的对应文件

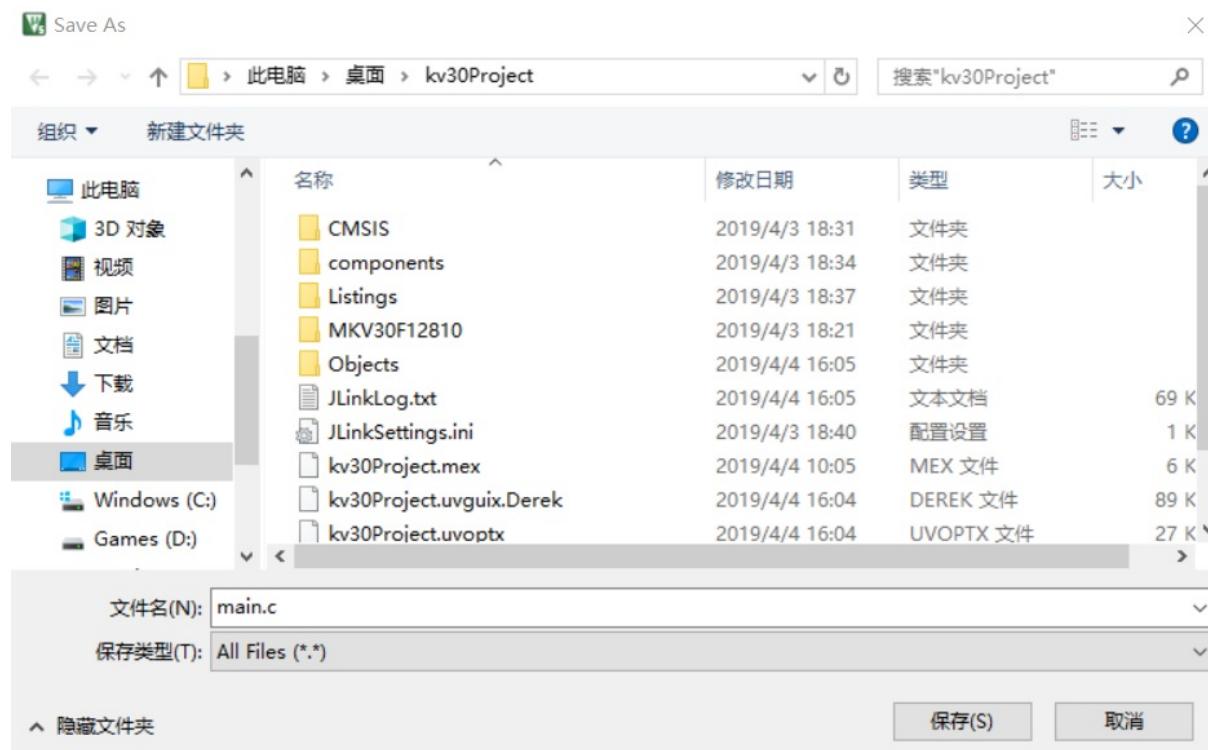
修改 board.c 文件，文件代码如下

```
#include <stdint.h>
#include "board.h"
#include "fsl_common.h"
#include "fsl_debug_console.h"

#define BOARD_DEBUG_UART_CLK_FREQ CLOCK_GetCoreSysClkFreq()
#define BOARD_DEBUG_UART_INSTANCE 0U
#ifndef BOARD_DEBUG_UART_BAUDRATE
#define BOARD_DEBUG_UART_BAUDRATE 115200
#endif
#define BOARD_DEBUG_UART_TYPE kSerialPort_Uart

void BOARD_InitDebugConsole(void) {
    uint32_t uartClkSrcFreq = BOARD_DEBUG_UART_CLK_FREQ;
    DbgConsole_Init(BOARD_DEBUG_UART_INSTANCE, BOARD_DEBUG_UART_BAUDRATE, BOARD_DEBUG_UART_TYPE, uartClkSrcFreq
);
}
```

点击工具栏的新建文件，生成一个空白 Text 文件，然后点击保存，文件名字修改成 main.c，保存到工程的根目录



双击工程结构树的 Souce 文件夹，将 main.c 文件引入



修改 main.c 文件如下

```
#include "board.h"
#include "fsl_debug_console.h"
#include "clock_config.h"
#include "pin_mux.h"

int main(void)
{
    BOARD_InitPins();
    BOARD_BootClockRUN();
    BOARD_InitDebugConsole();
    PRINTF("hello world!\r\n");
    while(1)
    {
    }
}
```

编译，烧录代码进板子，串口助手打印以下信息，完成工程文件的搭建





3. 基于 NXP 的 IAR 开发环境搭建



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4. 基于 NXP 的 MCUXpresso 开发环境搭建



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4.1.下载并安装 MCUXpresso IDE

[MCUXpressoIDE 下载页面](#)

Step 1.进入下载页面，点击 Download

MCUXpresso Integrated Development Environment (IDE)

OVERVIEW

DOCUMENTATION

DOWNLOADS

DEVELOPMENT TOOLS

Jump To

- Overview & Features
- Supported Devices
- Target Applications
- System Requirements

Overview

The MCUXpresso IDE brings developers an easy-to-use Eclipse-based development environment for NXP® MCUs based on Arm® Cortex®-M cores, including LPC and Kinetis® microcontrollers and i.MX RT crossover processors. The MCUXpresso IDE offers advanced editing, compiling and debugging features with the addition of MCU-specific debugging views, code trace and profiling, multicore debugging, and integrated configuration tools. The MCUXpresso IDE debug connections support Freedom, Tower® system, LPCXpresso, i.MX RT, and your custom development boards with industry-leading open-source and commercial debug probes from NXP, P&E Micro®, and

Features

- A free-of-c for Kinetis processors
- Advanced specific de
- Integrated and periph
- Industry-st libraries: o| Newlib/Nai
- Managed r
- Built-in em

[More ▾](#)

User Guide

Download

Step 2.点击 MCUXpresso IDE

Product Information

MCUXpresso IDE

To register a New Product please click on the button below

Version	Description	Download Log
10.3.1	MCUXpresso IDE	Download Log

Step 3.选择 MCUXpresso v10.3.1 - Windows, 等待下载完成

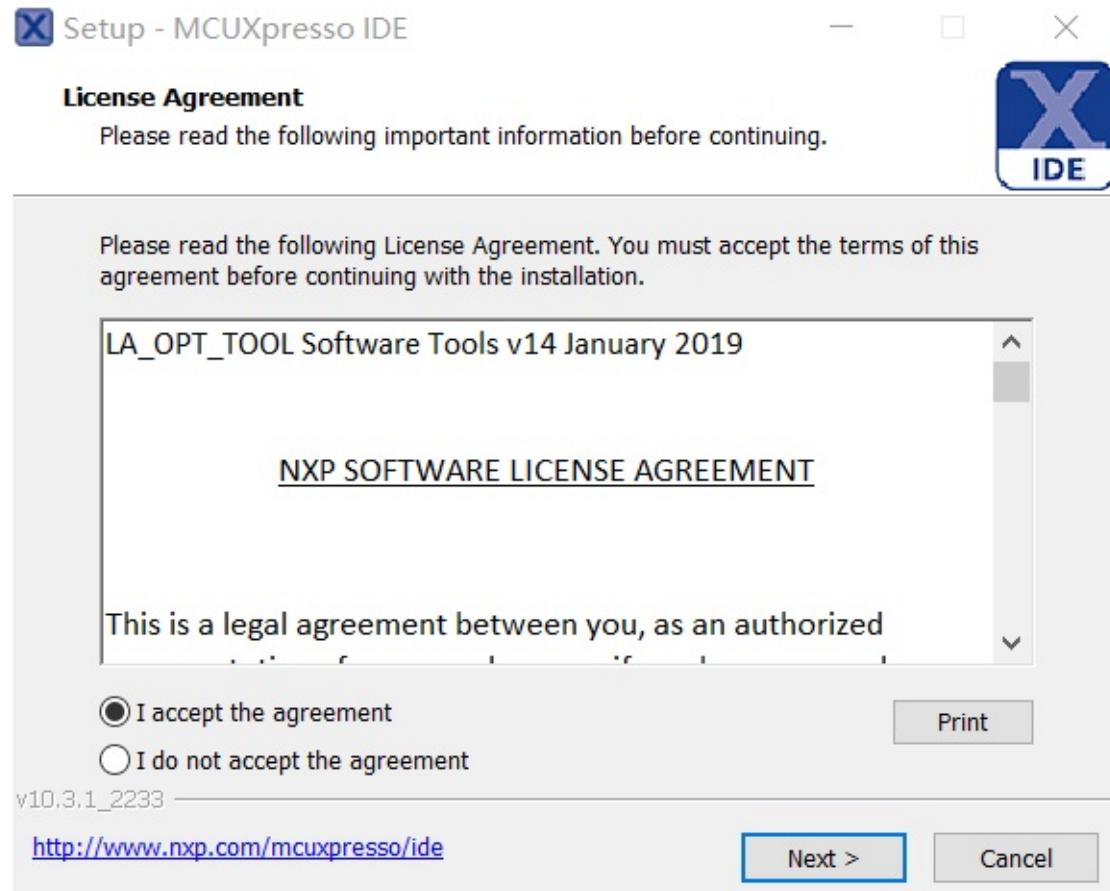
Product Download

MCUXpresso IDE

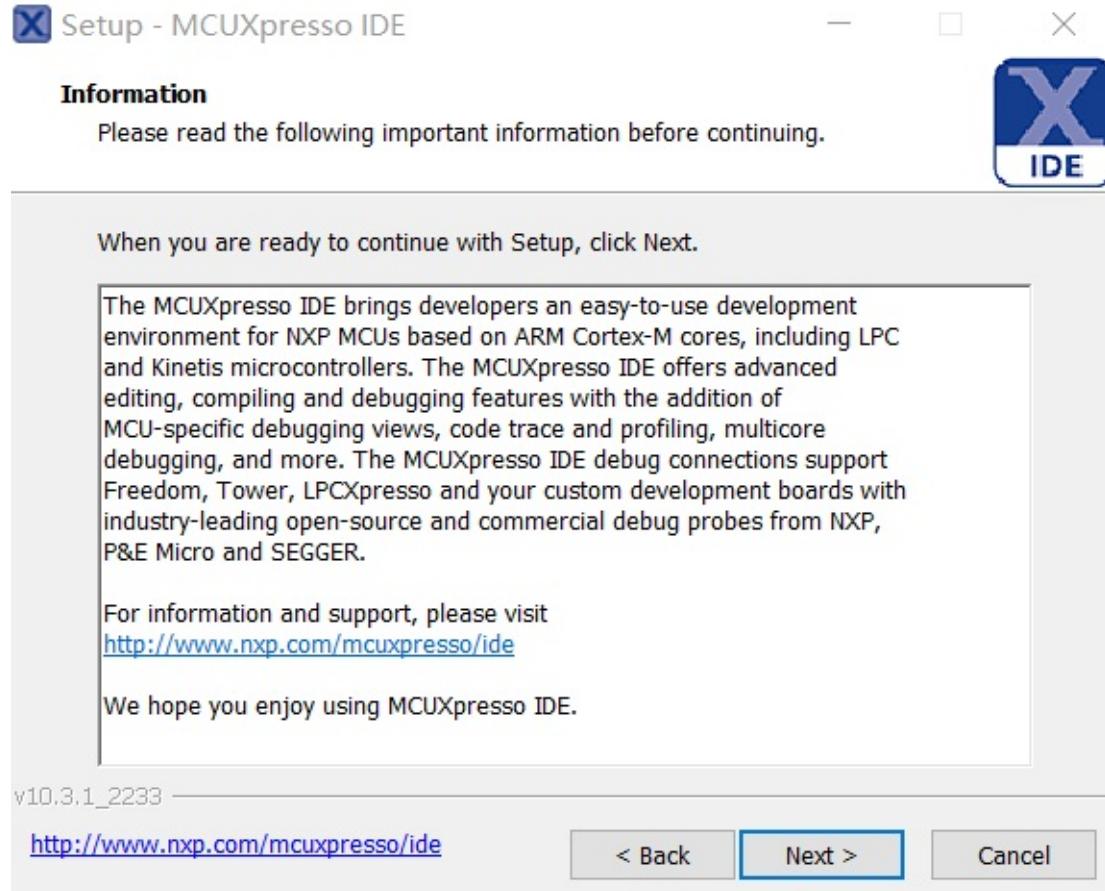
File Description	File Size	File Name
MCUXpresso v10.3.1 - Linux	753.4 MB	mcuxpressoide-10.3.1 2233.x86 64.deb.bin
MCUXpresso v10.3.1 - Mac	720.8 MB	MCUXpressoIDE 10.3.1 2233.pkg
MCUXpresso v10.3.1 - Windows	675.8 MB	MCUXpressoIDE 10.3.1 2233.exe
Readme MCUXpresso 10.3.1	53.7 KB	Readme MCUXpresso 10.3.1.pdf

[Download Selected Files](#)

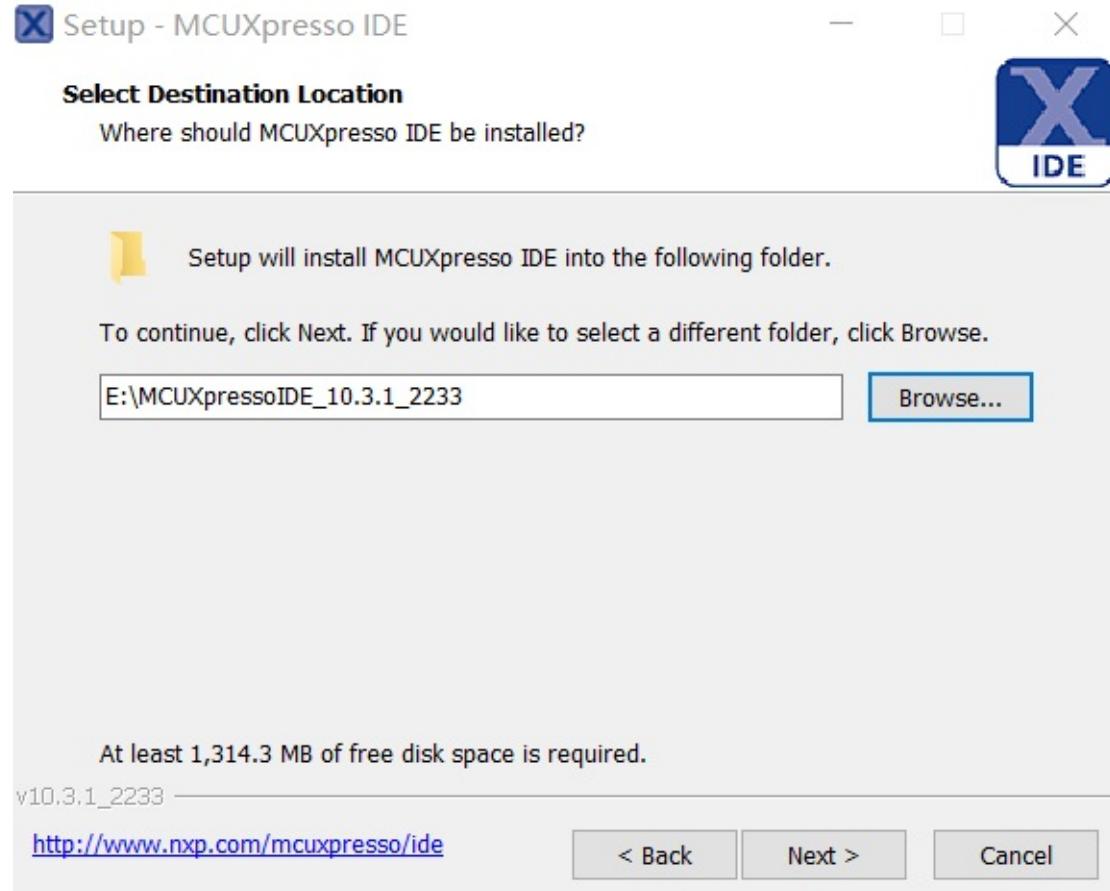
Step 4.双击安装包，选择 I accept the agreement，点击 Next



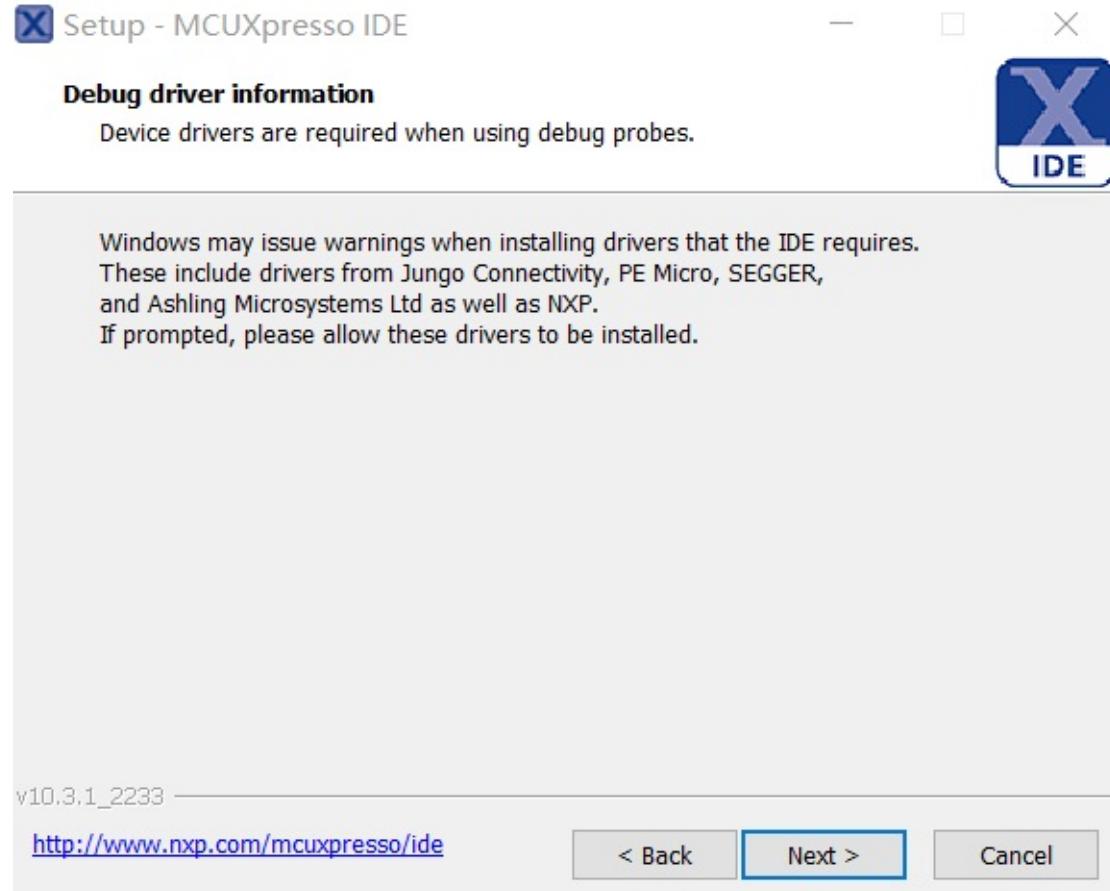
Step 5.点击 Next



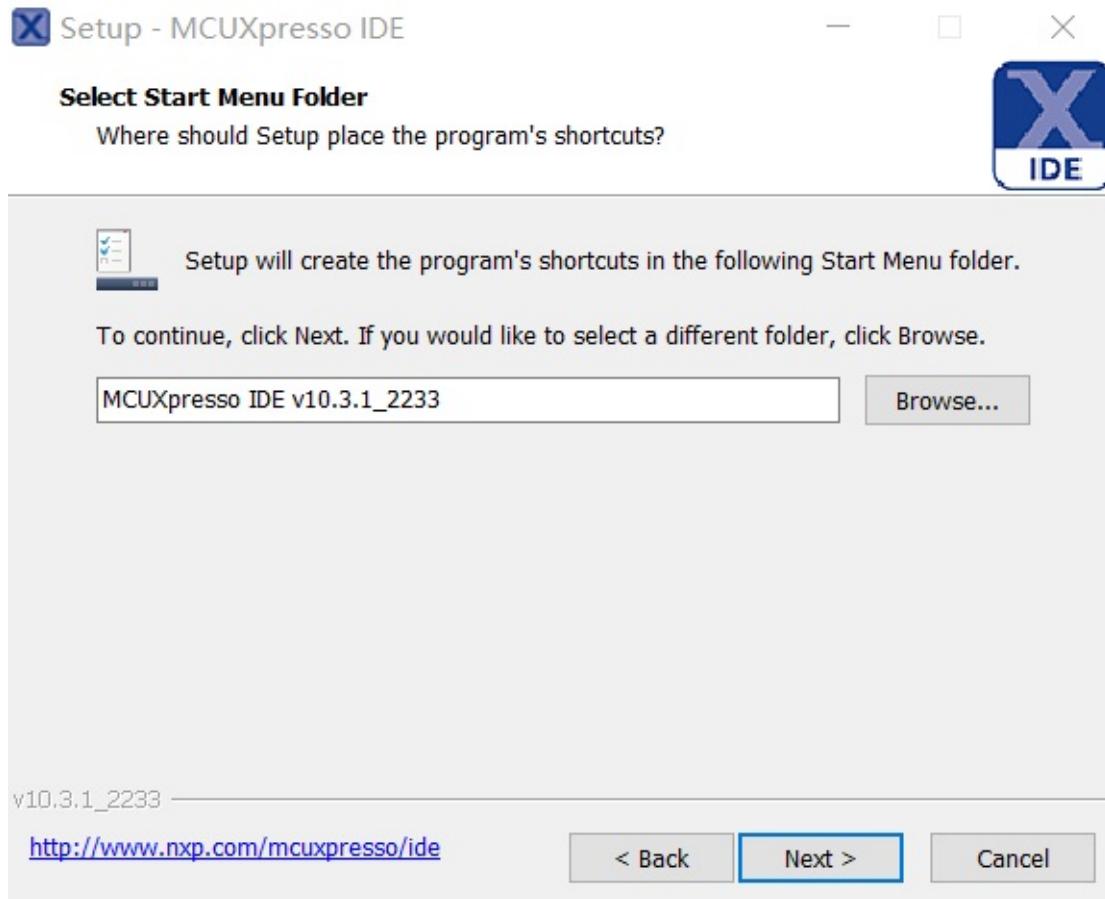
Step 6.选择安装路径，点击 Next



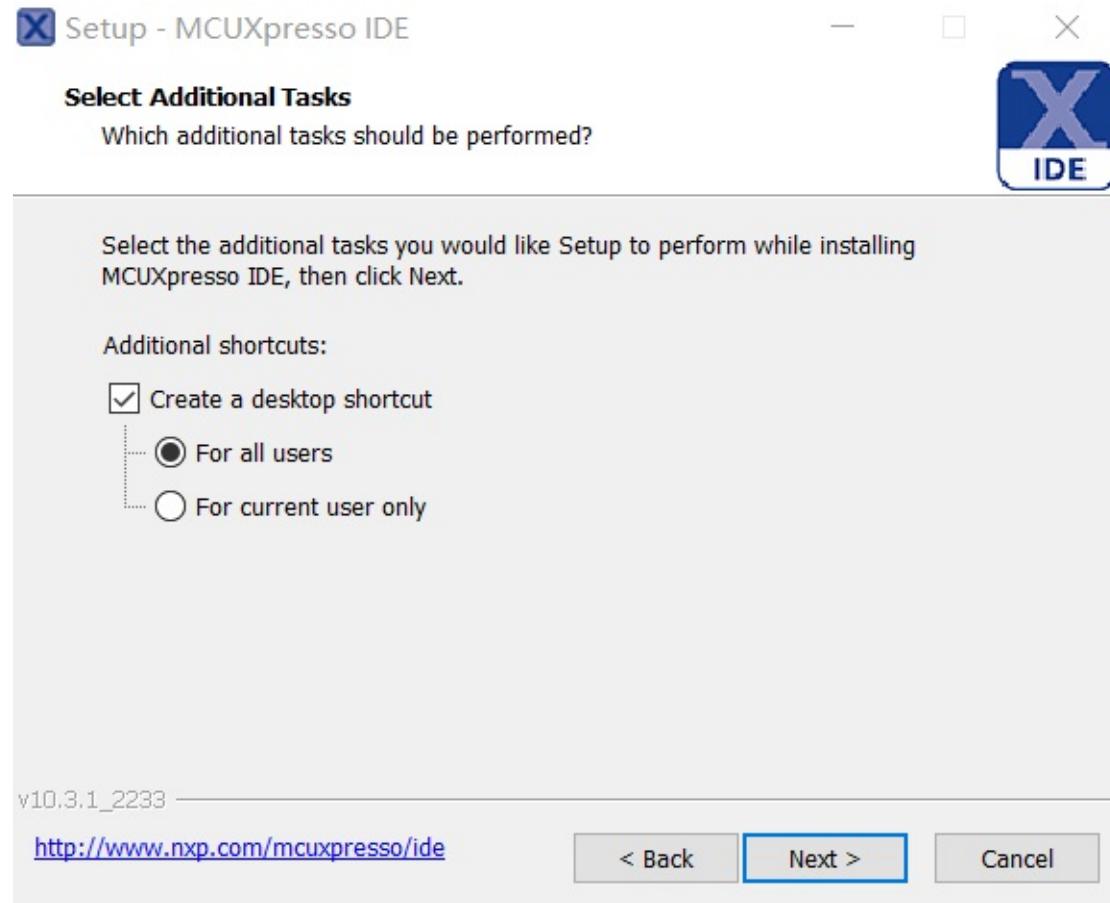
Step 7.点击 Next



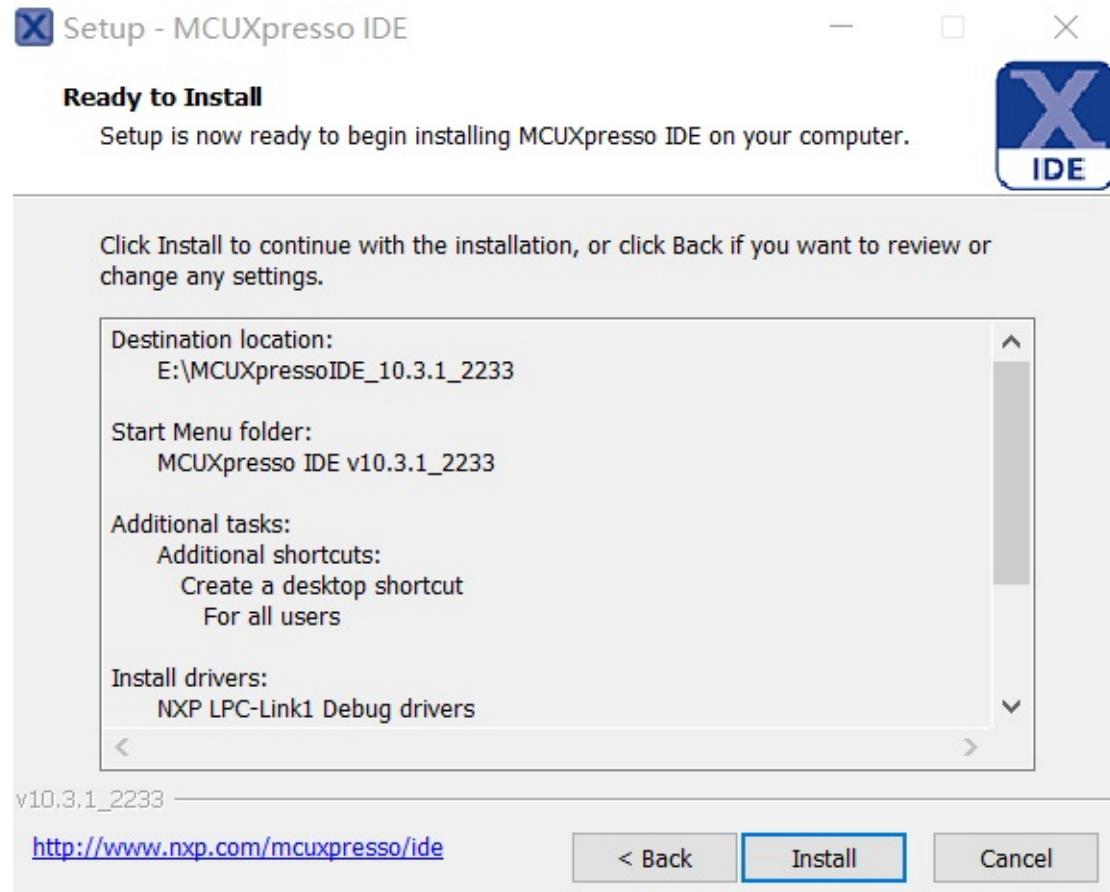
Step 8.选择创建快捷键名称，点击 Next



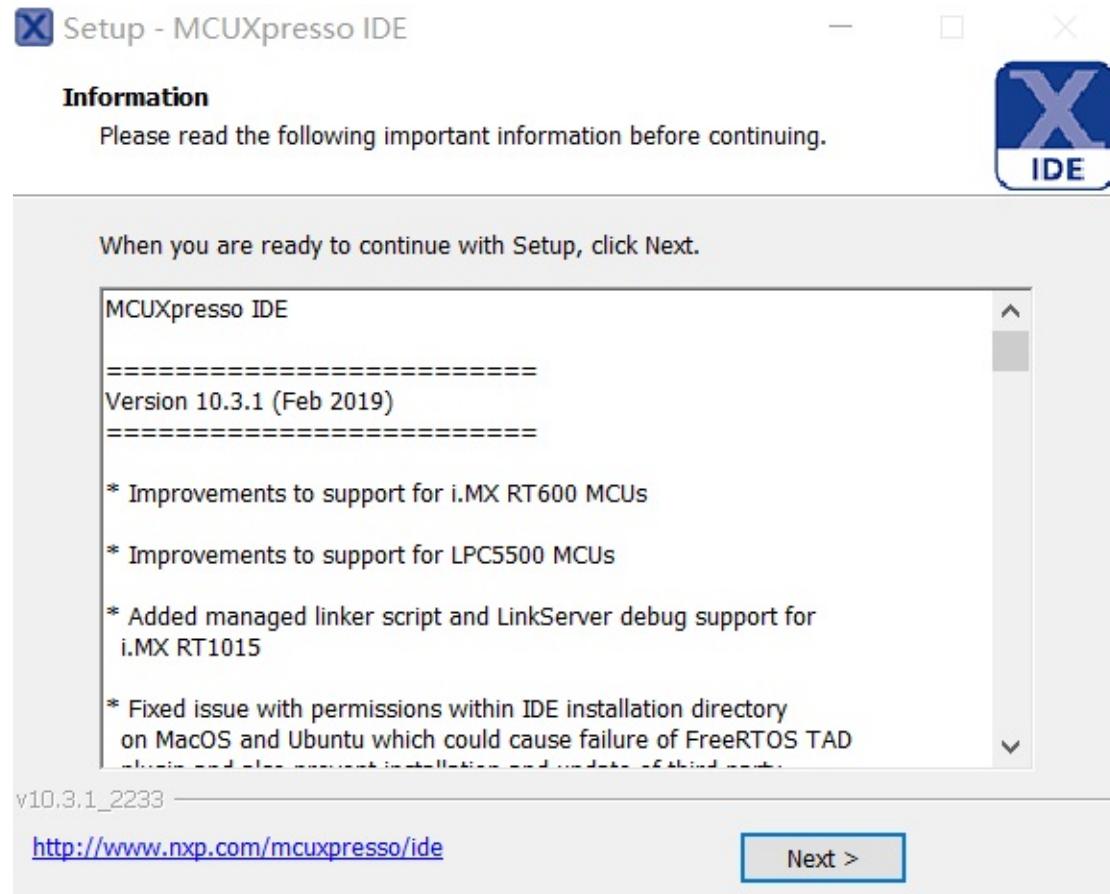
Step 9.允许任何人打开，点击 Next



Step 10.点击 Install



Step 11.点击 Next



Step 12.点击 Finish





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4.2.下载并安装 MCUXpresso Config Tools

[MCUXpressoConfigTools 下载页面](#)

Step 1.进入下载页面，点击下载

Recommended Software & Tools (4)

	MCUXpresso Config Tools, Windows 64bit package (REV 4)	下载
MCUXpresso Config Tools v4 for Windows 64-bit. Supports MCUXpresso SDK. Includes Pins and Clocks configuration, project cloning, and project generation.		
Archived		
EXE 139062 KB	MCUXPRESSO-CT-WIN64-PACKAGE	2017-11-14 15:27:00

Step 2.点击 I Accept

Agreement : MCUXpresso Config Tools, Windows 64bit package

LA_OPT_TOOL Software Tools v14 January 2019

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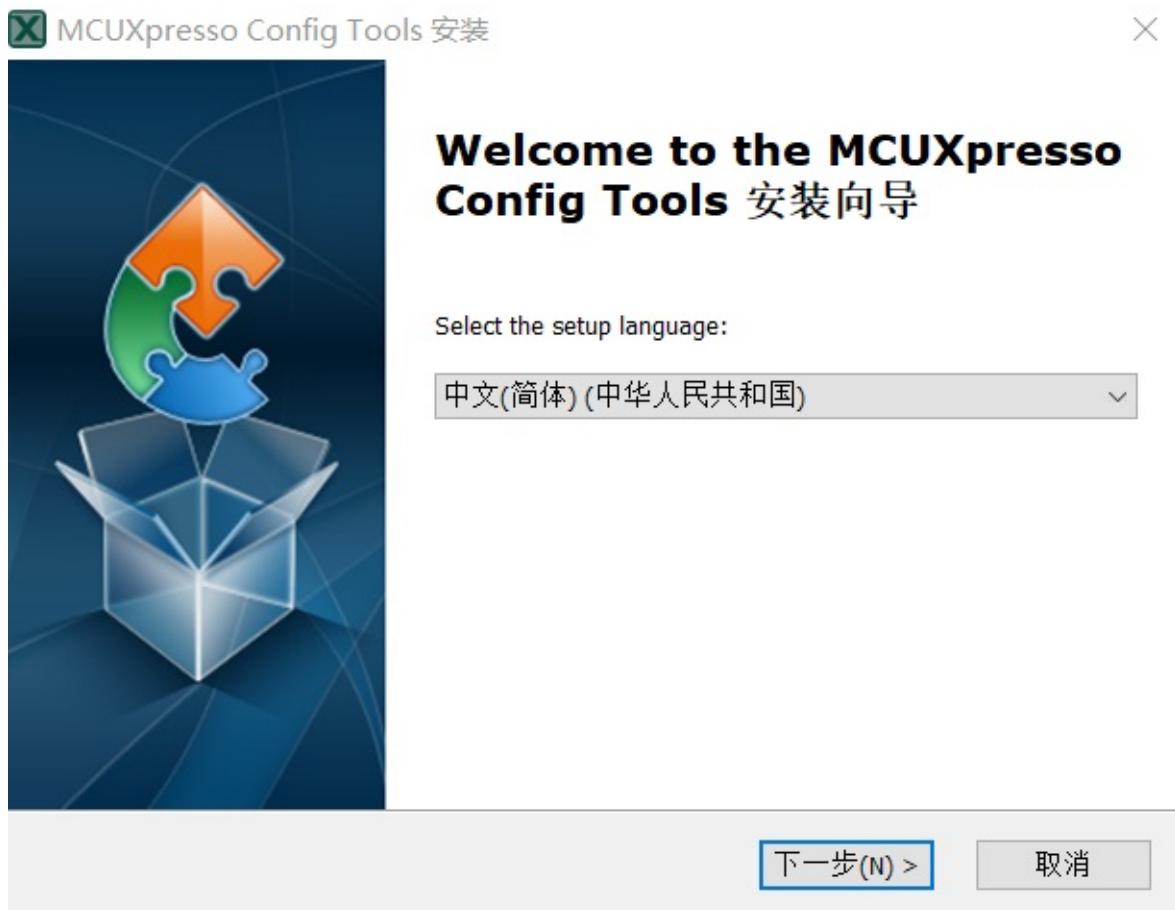
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1. DEFINITIONS

1.1 For NXP, the term "Affiliate" means (i) any Person Controlled by NXP Semiconductors N.V. or (ii) any Person Controlled by any transferee of all or substantially all of the assets of NXP Semiconductors N.V.

[I Accept](#) [Decline](#)

Step 3.选择语言，点击下一步



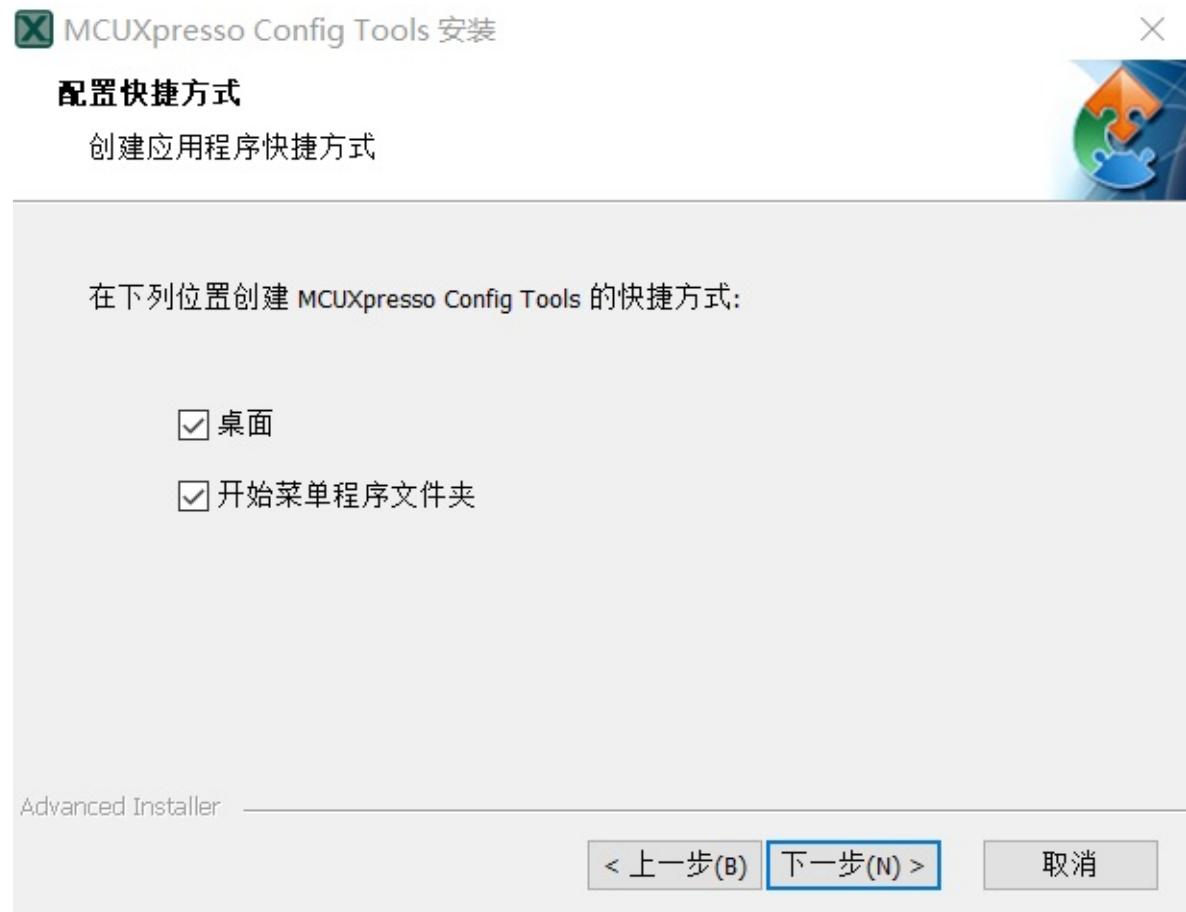
Step 4. 点击下一步



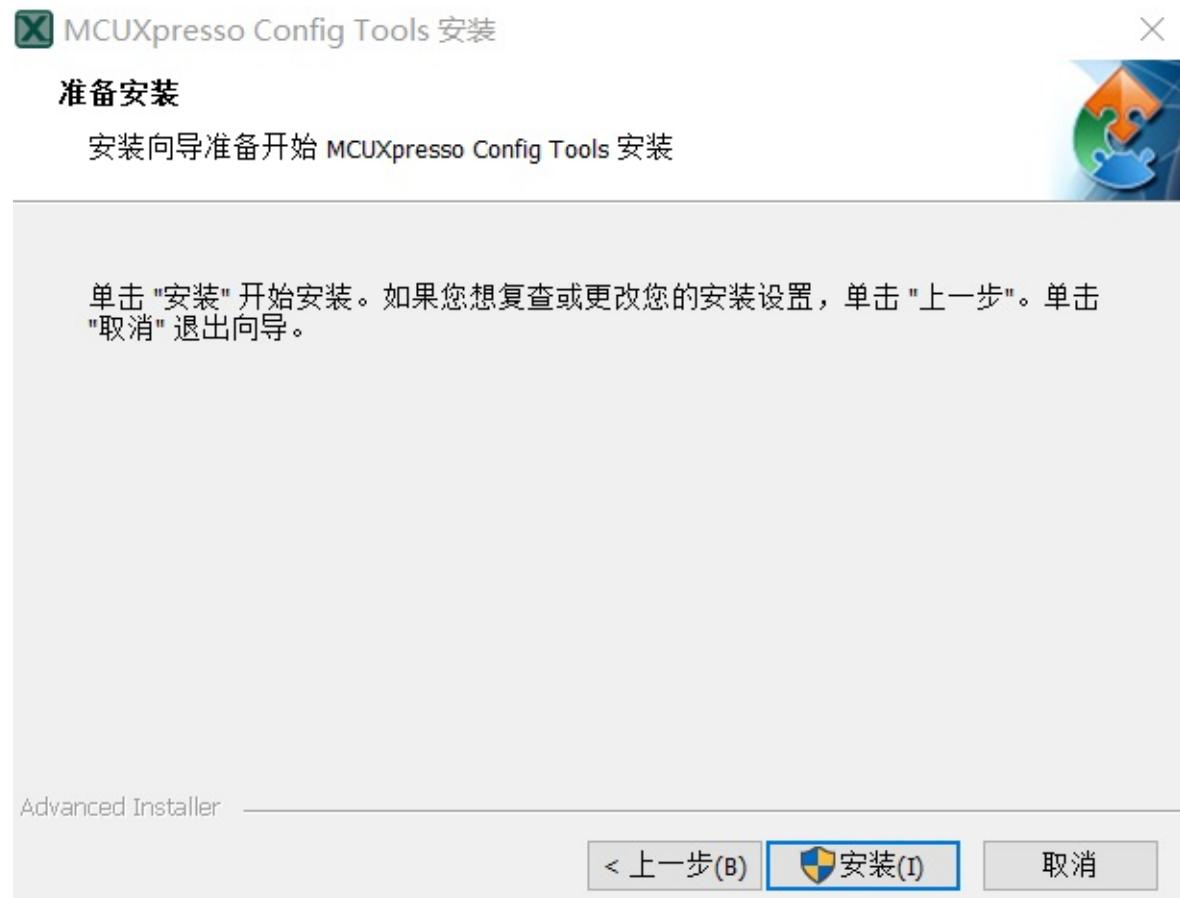
Step 5.选择安装路径，点击下一步



Step 6. 创建快捷方式，点击下一步



Step 7. 点击安装



Step 8.点击完成





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4.3. 下载 MCUXpresso SDK

[SDK 下载地址](#)

Step 1. 进入下载地址, 搜索你要下载芯片的 SDK, 这里以 MKV30F64xxx10 为例, 选择 MKV30F64xxx10, 右方会显示该芯片的信息, 然后点击 Build MCUXpresso SDK

The screenshot shows the MCUXpresso SDK download interface. On the left, there is a search bar with "MKV30F64" and a dropdown menu titled "Select a Device, Board, or Kit" with options like Boards, Kits, Processors, and MKV30F64xxx10 (which is highlighted). Below that is a section to "Name your SDK" with "SDK_2.5.0_MKV30F64xxx10" entered. A note says "Don't use: <,>,;,:,?,*,\ in the name of your SDK". On the right, there is a "Hardware Details" panel listing the included part numbers (MKV30F64VLF10, MKV30F64VFM10, MKV30F64VLH10), board(s) (TWR-KV31F120M, FRDM-KV31F), device (MKV30F12810), core type/max freq (Cortex-M4F / 100MHz), and device memory size (64 KB Flash, 16 KB RAM). At the bottom right is an "Actions" panel with three buttons: "Build MCUXpresso SDK" (highlighted in green), "Explore selection with Clocks tool", and "Explore selection with Pins tool".

Step 2. 选择 Windows 主机系统, 下载的工具链为 MCUXpresso IDE, 组件默认即可, 若有特别的组件需求可自己添加进去, 点击 Download SDK

SDK Builder

Generate a downloadable SDK archive for use with desktop MCUXpresso

Developer Environment Settings

Selections here will impact files and examples projects included in the SDK and Generated Project

Host OS

Windows

Toolchain / IDE

MCUXpresso IDE

Select Optional Middleware

Add middleware, operating systems, and software libraries to your SDK.

 Add software component

This MCUXpresso SDK configuration is available for direct download

Download SDK

Archive Name

SDK_2.5.0_MKV30F64xxx10

Don't use: <,>, ;, ", /, \, ?, *, \ in the name of your
SDK

Step 3.点击 I Agree

SDK Downloads

x

Software Terms and Conditions

Please read the following agreement and click "I AGREE" at the bottom before downloading your software.

[EULA](#)[Software Content Register](#)

LA_OPT_NXP_Software_License v4 November 2018

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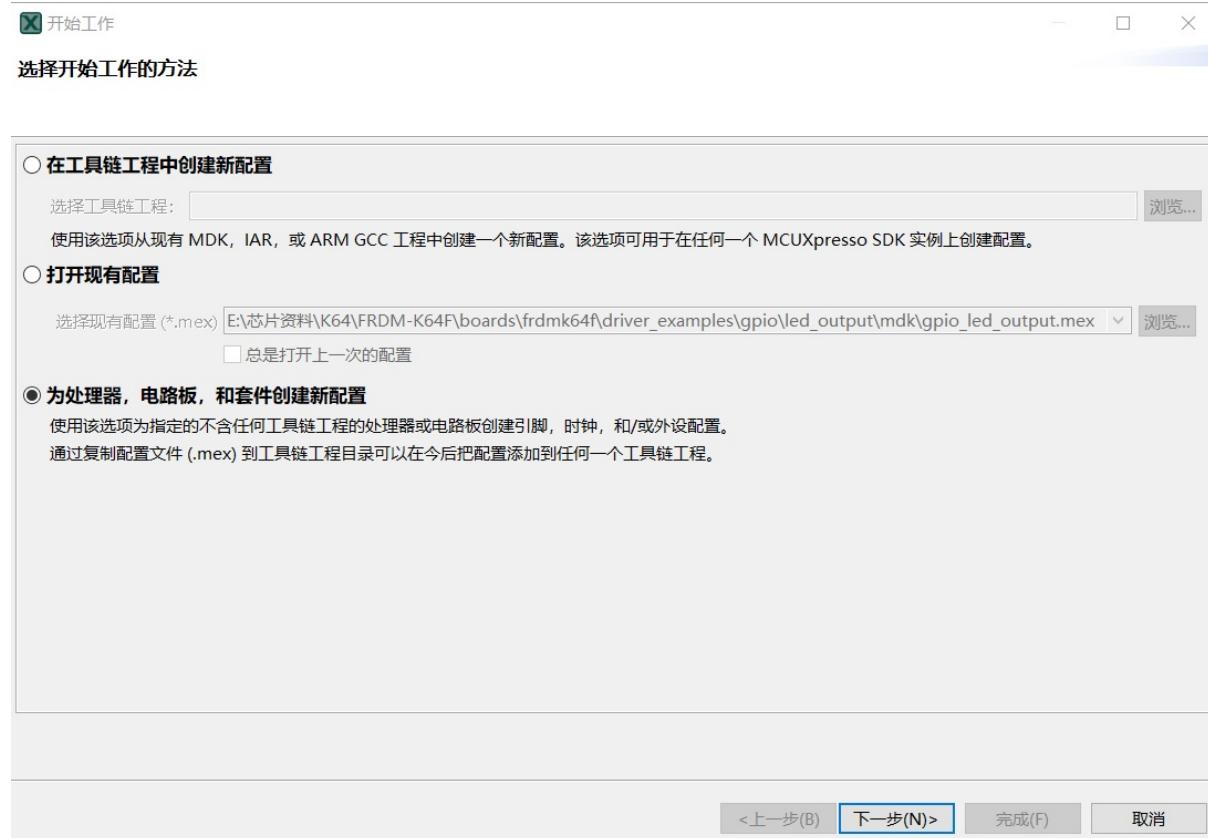
[I Agree](#)[Back](#)[Close](#)



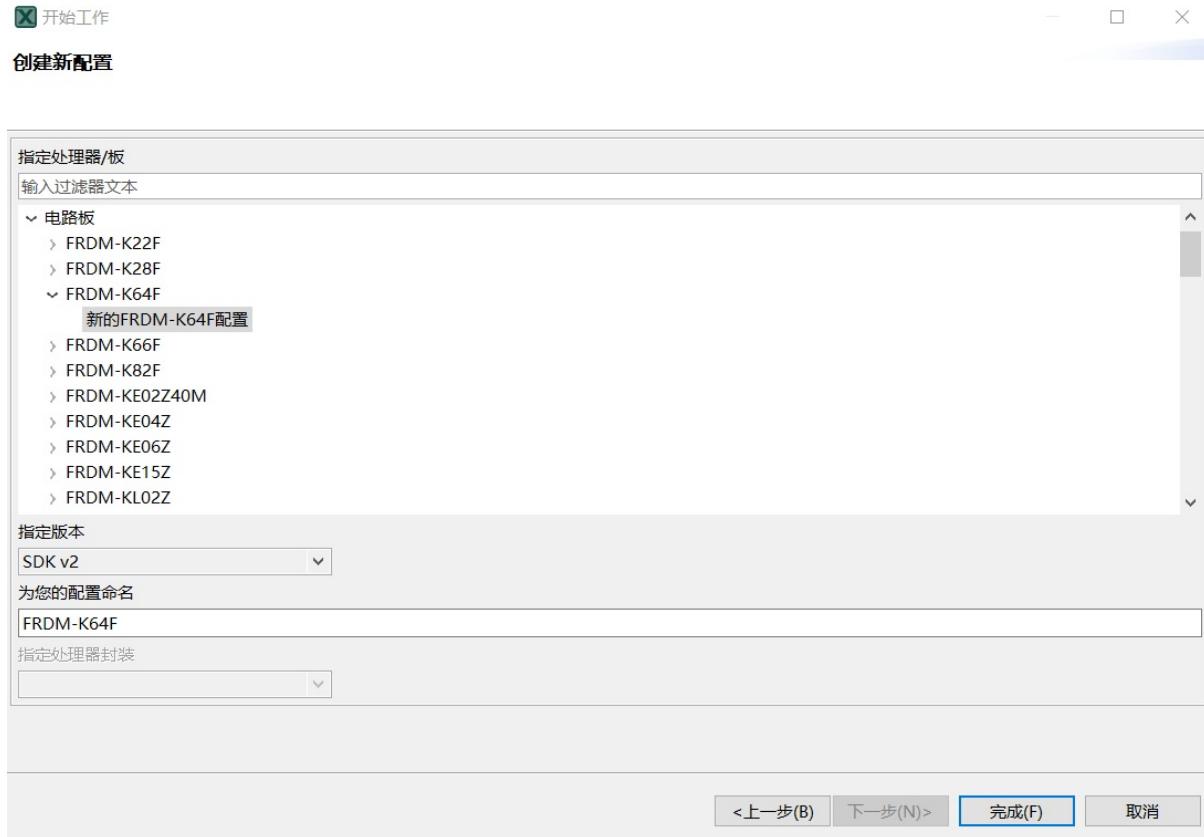
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4.4. 使用 MCUXpresso Config Tools 生成时钟源代码

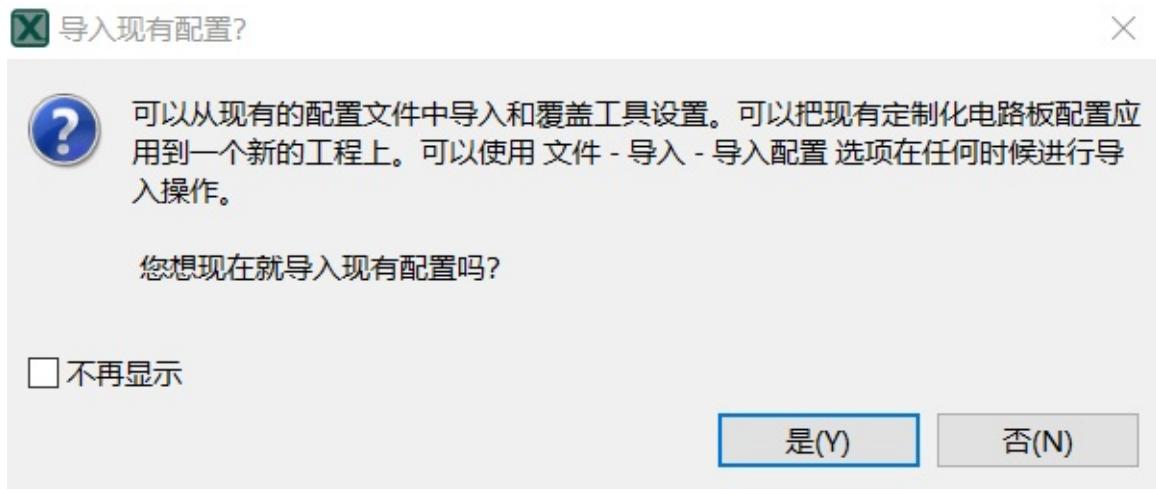
打开 MCUXpresso Config Tools, 该工具可以在现有的示例上进行配置, 但在这里选择为处理器, 电路板, 和套件创建新配置, 点击下一步



是否导入配置, 选择否



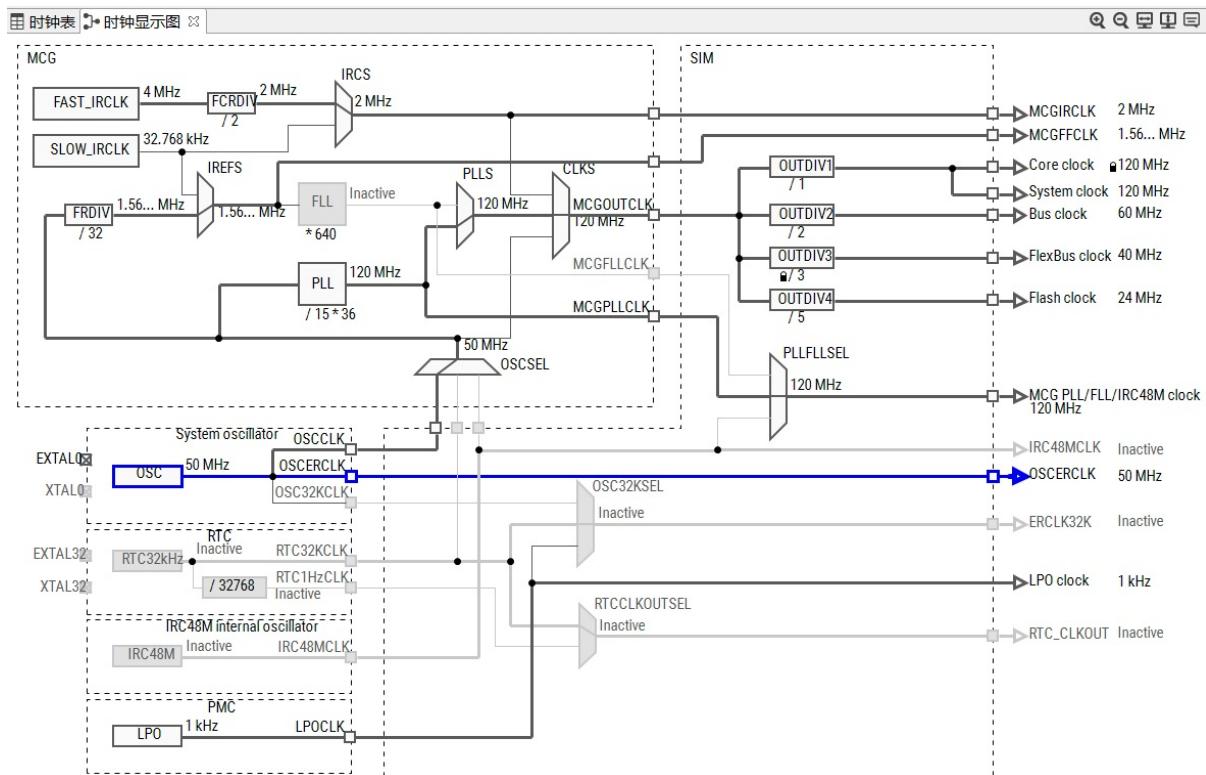
是否导入配置，选择否



从时钟表中可看到默认的时钟配置，可在这里修改时钟配置

时钟表			
时钟源		时钟输出	
名称	可	值	精度
内部			
FAST_IRCLK		4 MHz	
SLOW_IRCLK		32.768 kHz	
IRC48M		Inactive	
LPO		1 kHz	
外部			
OSC (System oscillator)	<input checked="" type="checkbox"/>	50 MHz	
OSC mode		Using external reference clock	
Frequency Range		Very_high frequency range 8-32 MHz	
System O...t Load		0 pF	
RTC32kHz		Inactive	
USB clock input		Inactive	
ENET 1588...ck input		Inactive	
OSCERCLK		50 MHz	
ERCLK32K		Inactive	
RTC_CLKOUT		Inactive	
MCG PLL/F...8M clock		120 MHz	
LPO clock		1 kHz	
IRC48MCLK		Inactive	
USB FS clock		48 MHz	
Trace clock input		120 MHz	
ENET IEEE ...amp clock		50 MHz	
ENET RMII clock		50 MHz	
SDHC clock		50 MHz	
CLKOUT(FB_CLK)		40 MHz	

从时钟表显示图可看到默认的时钟配置，可在这里修改时钟配置



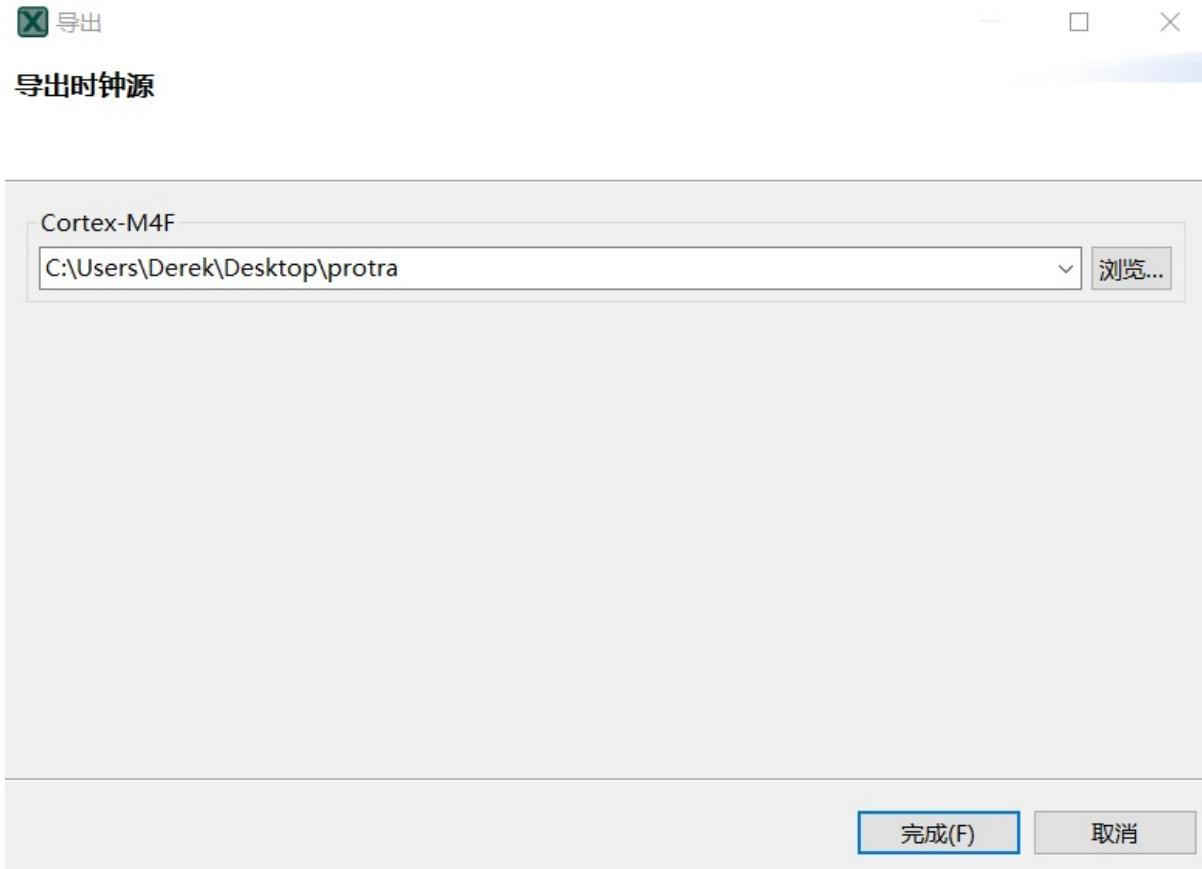
修改后的时钟配置，从右边的工具栏中点击源代码，可查看生成的源代码，点击右方的导出小按钮可将源代码导出加载到任意的工程中

The screenshot shows the MCUXpresso Config Tools interface with the "生成的代码预览" (Generated Code Preview) tab selected. The code editor displays two files: `clock_config.c` and `clock_config.h`. The `clock_config.h` file contains the following generated code:

```
/****************************************************************************
 * This file was generated by the MCUXpresso Config Tools. Any manual edi
 * will be overwritten if the respective MCUXpresso Config Tools is used
 ****
 */
/*
 * How to setup clock using clock driver functions:
 *
 * 1. CLOCK_SetSimSafeDivs, to make sure core clock, bus clock, flexbus c
 * and flash clock are in allowed range during clock mode switch.
 *
 * 2. Call CLOCK_Osc0Init to setup OSC clock, if it is used in target mo
 *
 * 3. Set MCG configuration, MCG includes three parts: FLL clock, PLL clk
 * internal reference clock(MCGIRCLK). Follow the steps to setup:
 *
 * 1). Call CLOCK_BootToXxxMode to set MCG to target mode.
 *
 * 2). If target mode is FBI/BLPI/PBI mode, the MCGIRCLK has been conf
 * correctly. For other modes, need to call CLOCK_SetInternalRefClk
 * explicitly to setup MCGIRCLK.
 *
 * 3). Don't need to configure FLL explicitly, because if target mode
 * mode, then FLL has been configured by the function CLOCK_BootTo
 * if the target mode is not FLL mode, the FLL is disabled.
 *
 * 4). If target mode is PEE/PBE/PEI/PBI mode, then the related PLL ha
 * setup by CLOCK_BootToXxxMode. In FBE/FBI/FEE/FBE mode, the PLL
 * be enabled independently, call CLOCK_EnablePll0 explicitly in t
 *
 * 4. Call CLOCK_SetSimConfig to set the clock configuration in SIM.
 */

```

选择导出时钟源的路径，点击完成，可在文件路径中查看被导出的文件





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4.5. 使用 MCUXpresso IDE 调试代码

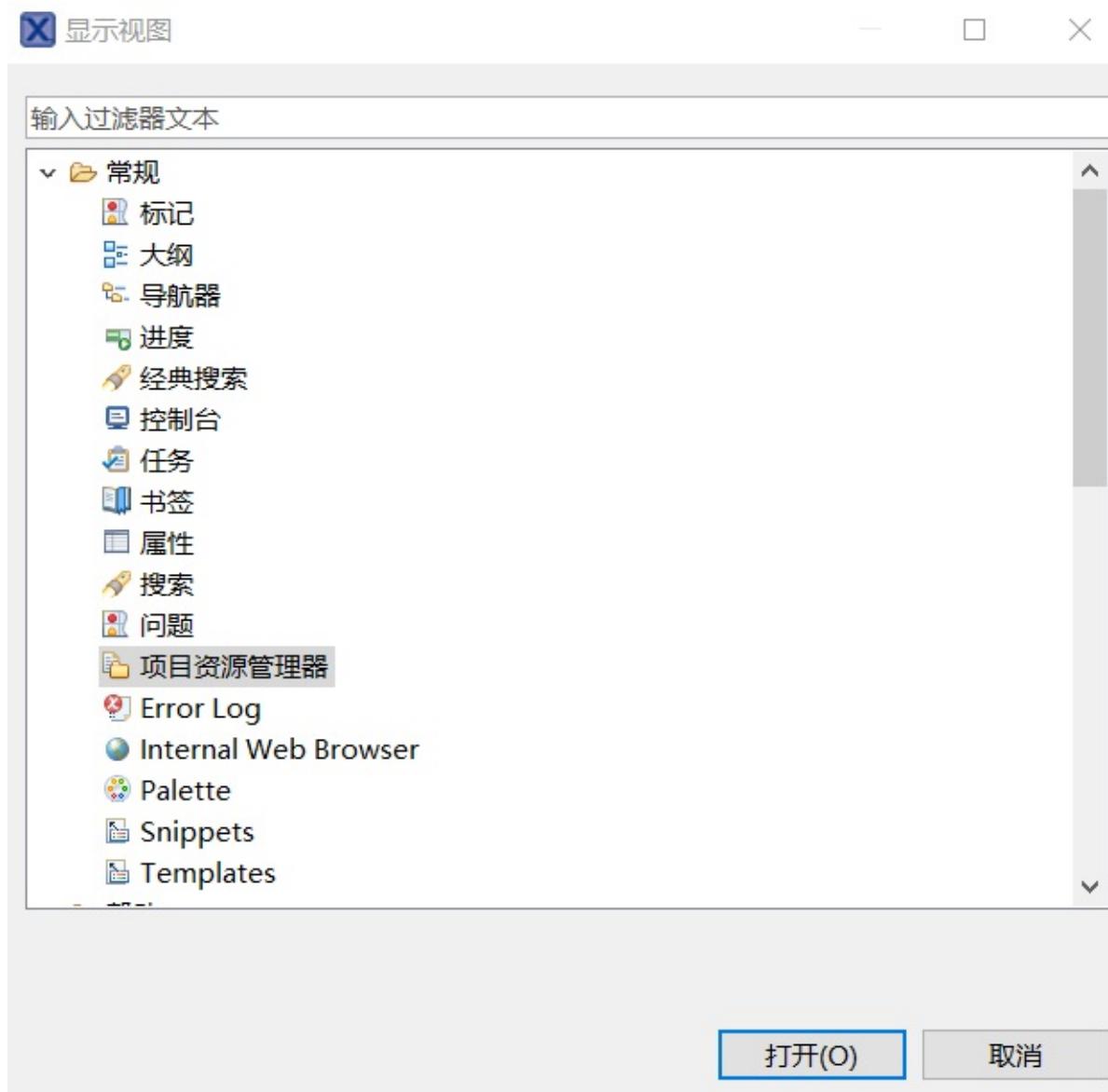


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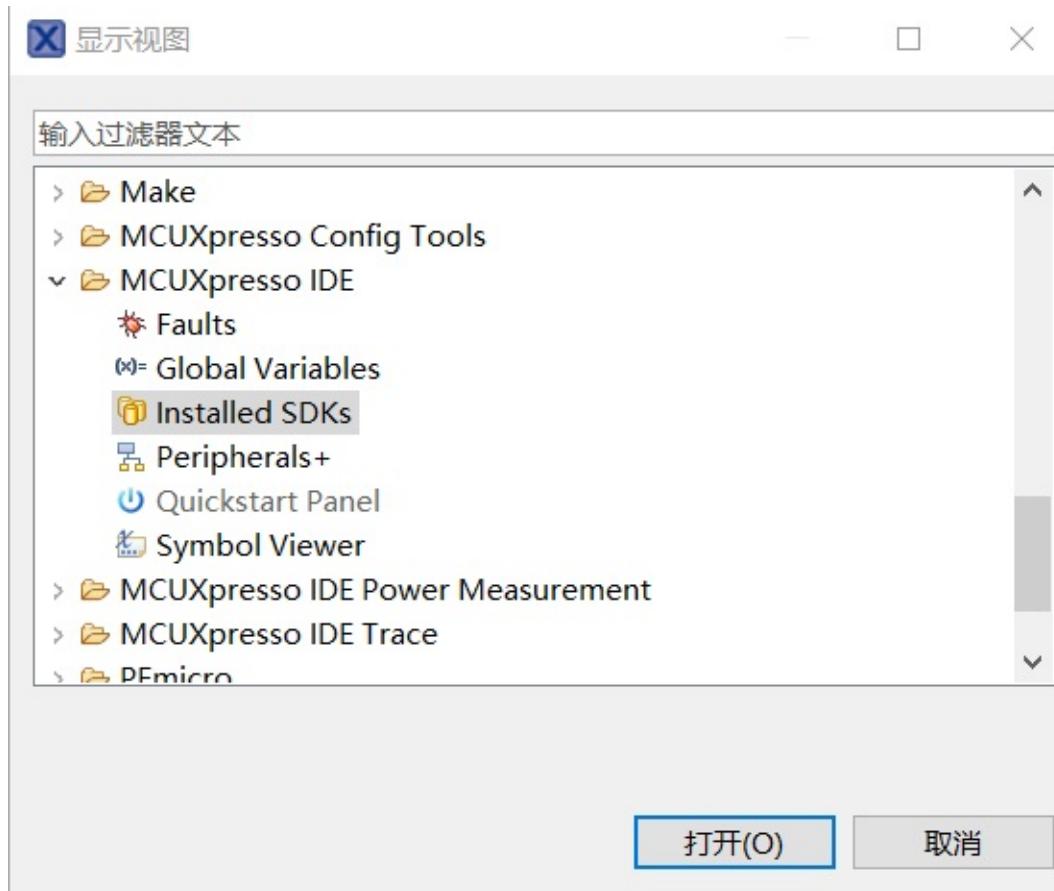
4.5.1.开启视图窗口

打开三个必要的视图窗口，选择工具栏：窗口->显示视图->其它

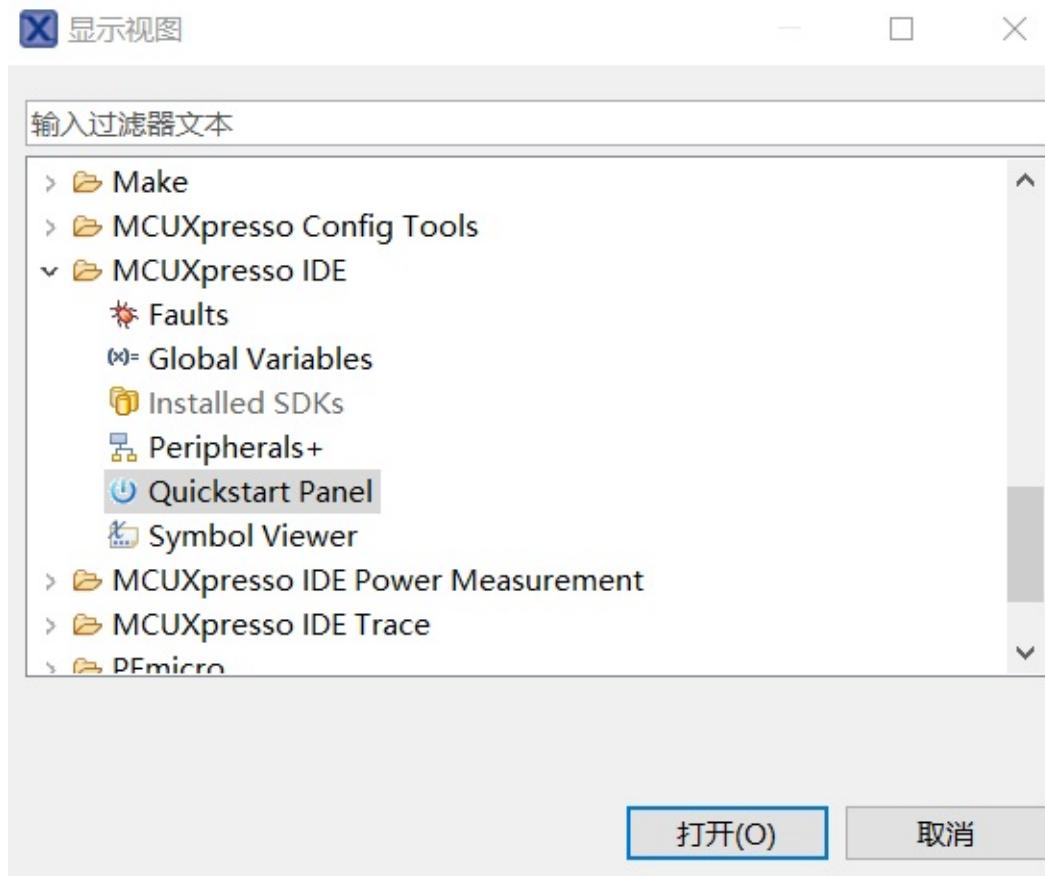
选择常规 -> 项目资源管理器，点击打开



选择 MCUXpresso IDE -> Installed SDKs，点击打开



选择 MCUXpresso IDE -> Quickstart Panel, 点击打开

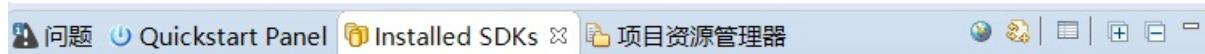




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4.5.2.加载 Xpresso SDK

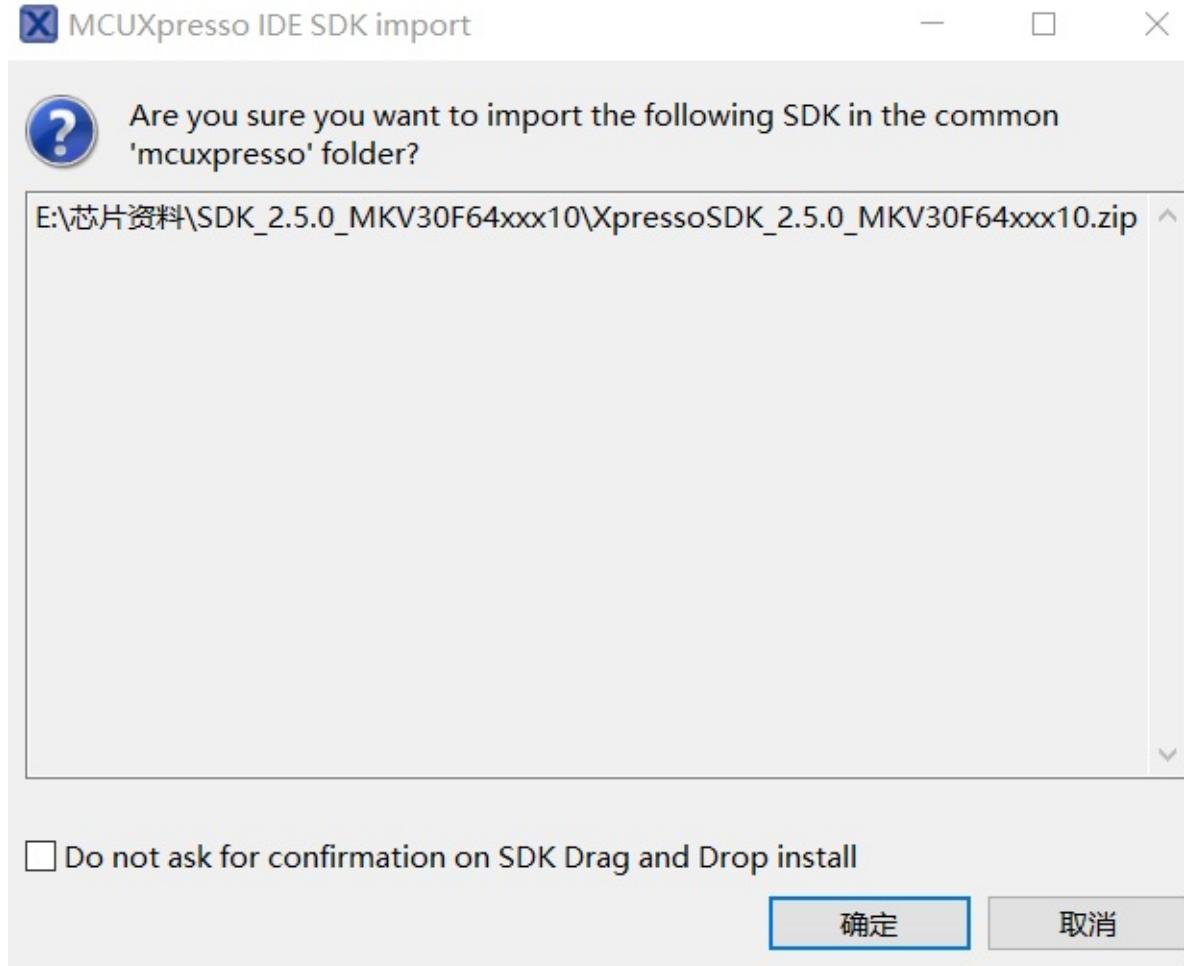
将下载好的 SDK 压缩包拖动到视图的 Installed SDKs 中



Installed SDKs

To install an SDK, simply drag and drop an SDK (zip file/folder) into the 'Installed SDKs' view. [Common Name]

点击确定



当视图的 InstalledSDKs 出现你放进来的 SDK 包则证明你已经完成了 SDK 的载入

Installed SDKs			
To install an SDK, simply drag and drop an SDK (zip file/folder) into the 'Installed SDKs' view. [Common 'mcuxpresso' folder]			
Name	SDK Version	Manifest Version	Location
<input checked="" type="checkbox"/> SDK_2.x_MKV30F64xxx10	2.5.0	3.4.0	<Common>\XpressoSDK_2.5.0_MKV30F64

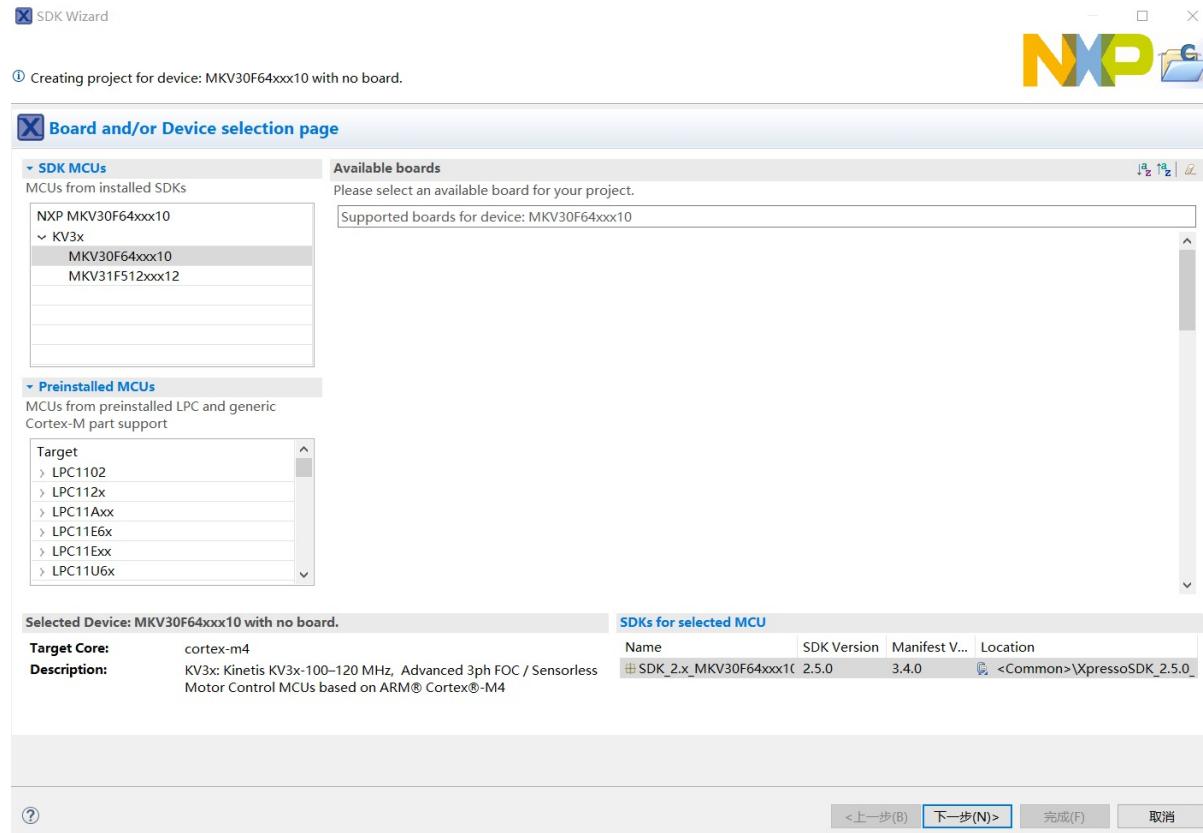


4.5.3.HelloWorld 示例

点击视图中的 Quickstart Panel->New project...



选择已被你载入的 SDK 包 KV3x，然后选择对应的芯片，在这里为 MKV30F64xxx10，点击下一步



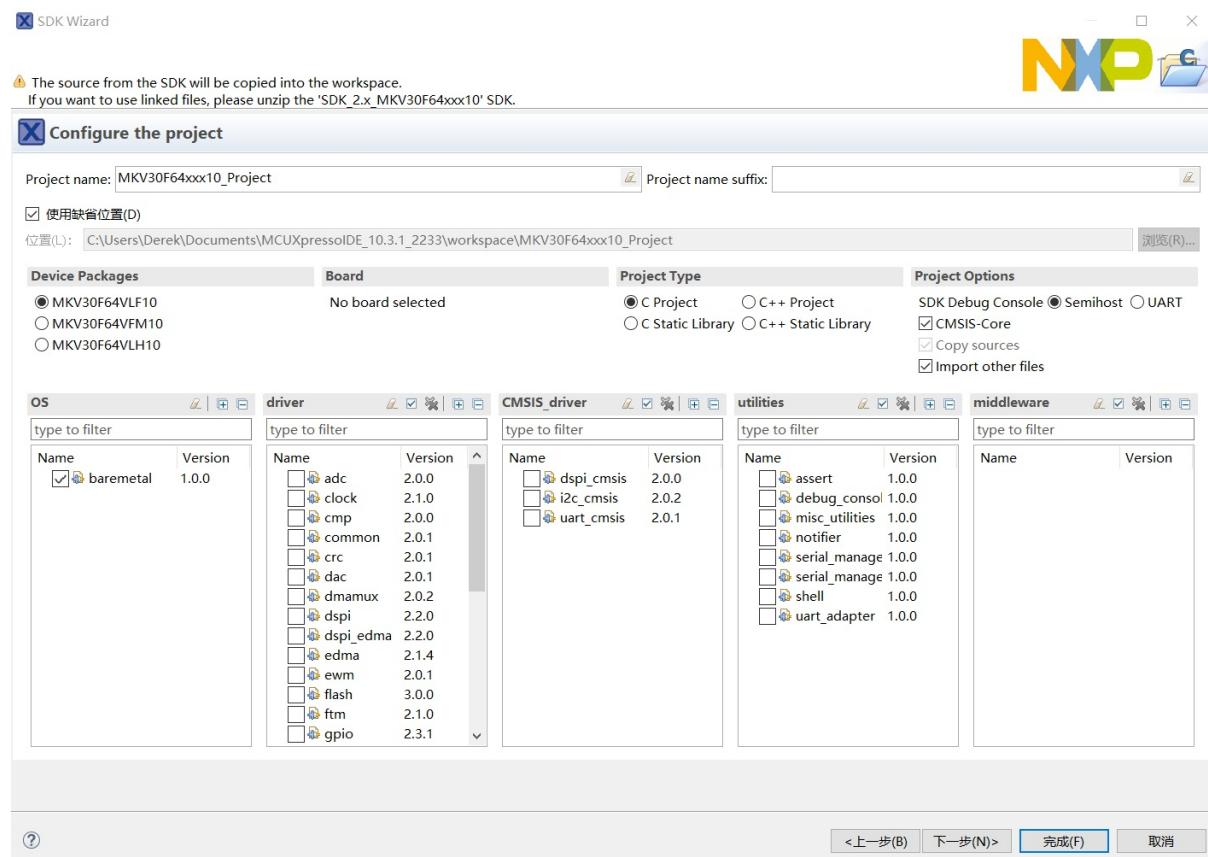
Project name prefix:生成的文件夹名的前缀

Project name suffix:生成的文件夹名的后缀

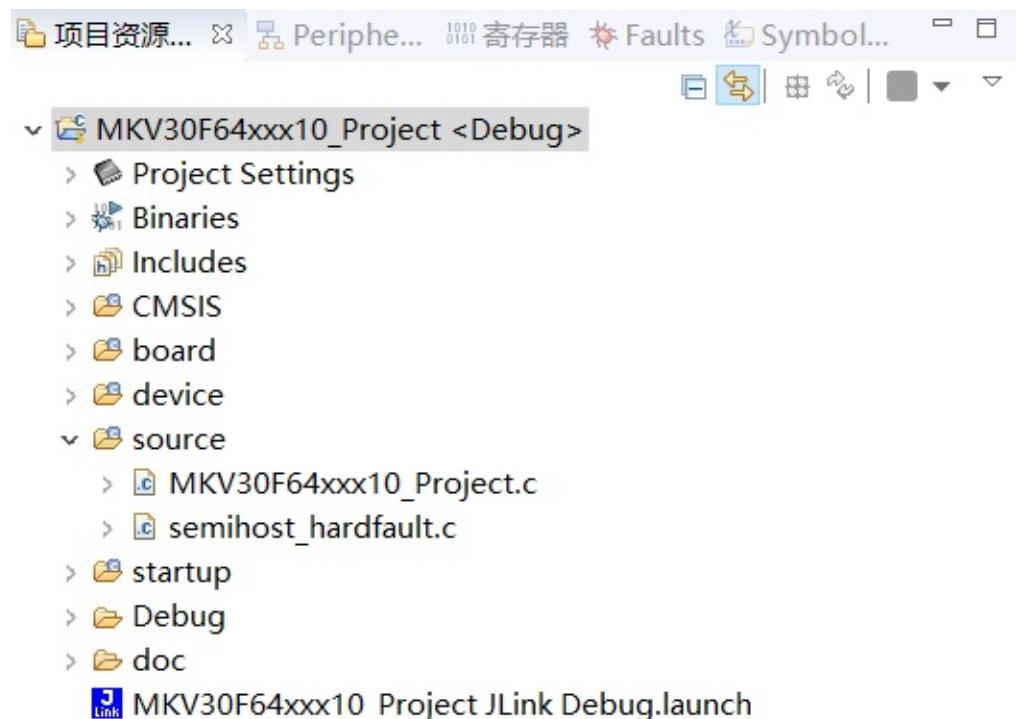
Device Packages:MKV30F64VLF10

SDK Debug Console:Semihost(允许代码在 Debug Viewer 中查看)

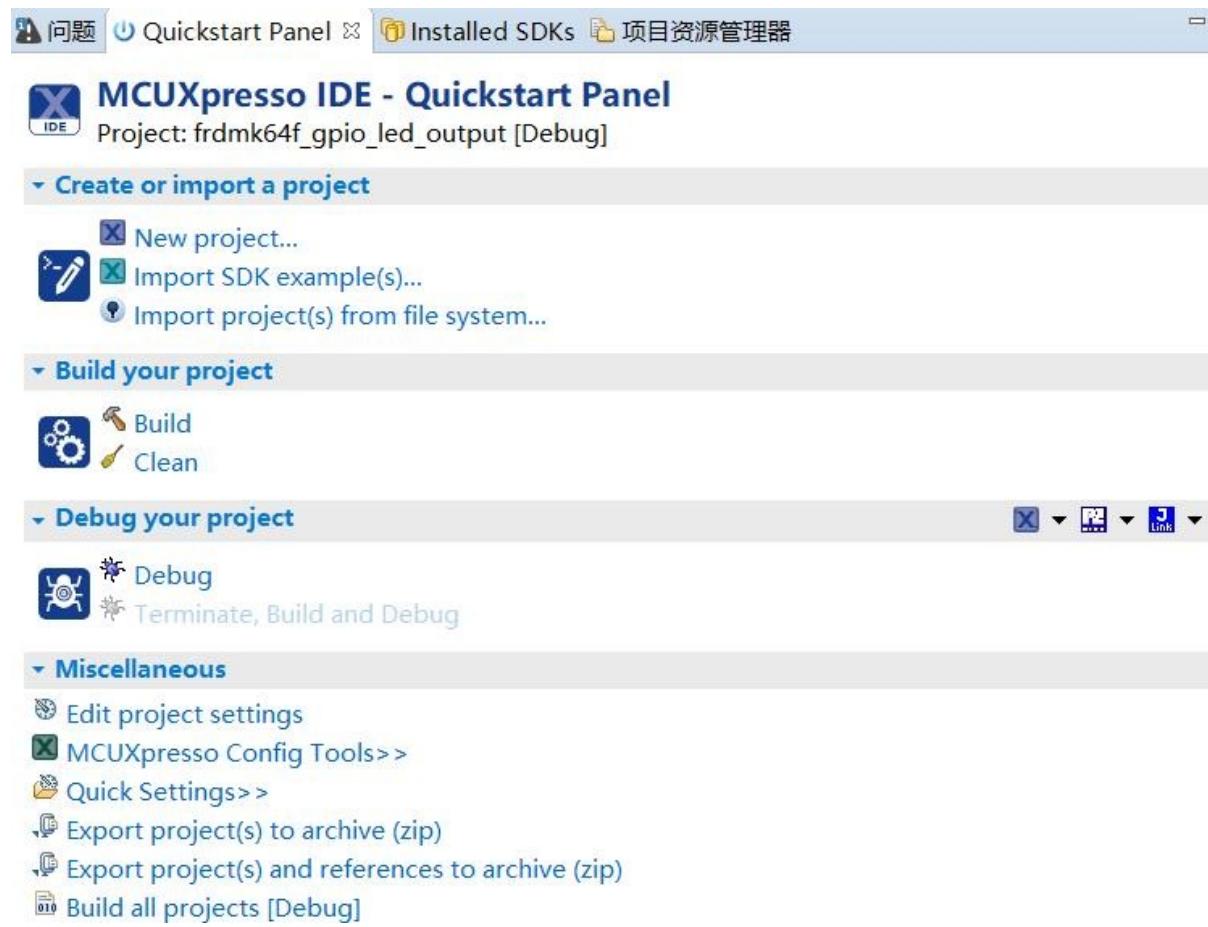
SDK 包引入文件选择，在这里不引入任何 Driver，选择，默认配置，点击完成



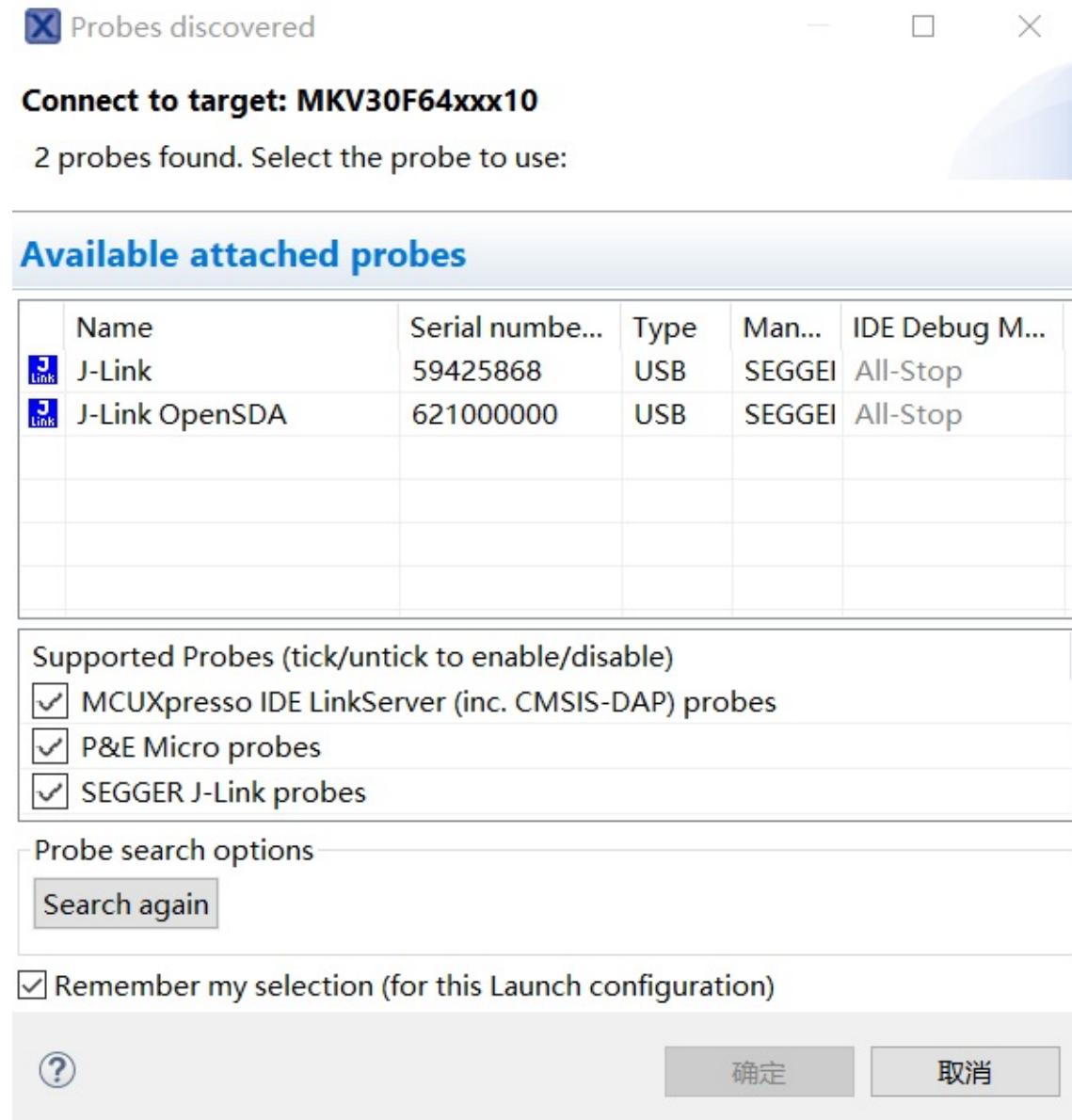
查看视图的项目资源管理器，出现 SDK 项目，则新建工程完成



把开发版接入电脑，点击视图的 Quickstart Panel，选择 Debug，右上的小图标也有对应的调试器，在这里采用 JLink Debug



选择 J-Link 配置，点击确定



由于开发版固件是 Jlink，所以会弹出以下窗口，点击 accept

J-Link V6.42b - Terms of use

The connected emulator is an OpenSDA running a J-Link compatible firmware.
In order to make use of this firmware, the following Terms Of Use must be accepted.

TERMS OF USE

- 1) The firmware is only to be used with NXP target devices. Using it with other devices is prohibited and illegal.
- 2) The firmware is for use with evaluation boards only. It is not for use with custom hardware.
- 3) The firmware may only be used for development and/or evaluation purposes. It may not be used for production purposes.
- 4) The firmware is made available without any warranty and without support.
- 5) The firmware may be used with the OpenSDA platform only.

For more information, please refer to <http://www.segger.com/opensda.html>

If there is any doubt if a certain use may be considered within the foregoing scope,
it is strongly recommended to consult SEGGER prior to use.

In order to contact SEGGER, please visit <http://www.segger.com/contact-us.html>

For development on target hardware, we recommend our industry leading

J-Link PRO (<http://www.segger.com/jlink-pro.html>)

J-Link Ultra+ (<http://www.segger.com/jlink-ultra-plus.html>)

J-Link PLUS (<http://www.segger.com/jlink-plus.html>)

J-Link (<http://www.segger.com/jlink.html>)

For professional production flash programming we recommend:

Do not show this message again for today

Decline

Accept

打开调试必要视图，点击是

☒ 确认切换透视图



已将这种启动配置成处于暂停状态时打开 Develop 透视图。

要立即打开此透视图吗？

记住我的决定(R)

是(Y)

否(N)

你会发现界面已经切换成 Debug 模式，上方工具栏，有以下调试图标，点击 Start



在下方视图的控制台中看到打印出来的信息

The screenshot shows a software interface for debugging a project named 'MKV30F64xxx10_Project'. The title bar indicates it's a JLink Debug session using GDB SEGGER Interface Debugging. The main area displays the output of the SEGGER J-Link GDB Server V6.42b, specifically the 'Terminal output channel', which shows the text 'Hello World'.

```
MKV30F64xxx10_Project JLink Debug [GDB SEGGER Interface Debugging] MKV30
[MCUXpresso Semihosting Telnet console for 'MKV30F64xxx10_Project'

SEGGER J-Link GDB Server V6.42b - Terminal output channel
Hello World
```