一、CCSv4 安装

1. 放入光盘,若不自动弹出,点击 autorun.exe,将弹出如下画面。然后,点击现在安装。



2. 点击 yes 确认安装。



3. 点击 NEXT 按钮。



4. 选择I accept the terms of the license agreement,并单击Next按钮。

Code Composer Studio v4.x for China Setup	×
Start Copying Files Review settings before conving files	
Setup has enough information to start copying the program files. If you want to rev change any settings, click Back. If you are satisfied with the settings, click Next to b files.	iew or begin copying
Install Directory: C:\Program Files\Texas Instruments\Code Composer Studio v4.x for China Setup Type: Typical	
	>
InstallJammer	Cancel

5. 开始安装。

I SP430 Code Generation Tools Setup	×
Installing Installing MSP430 Code Generation Tools	į
Please wait while Setup installs MSP430 Code Generation Tools on your computer. Installing Windows Format Libraries	
Texas Instruments < Back Cancel	

6. 单击Finish按钮。



7. 但是 YES 按钮重新启动,安装完成。

System	ı Restart required 🛛 🗙
	Code Composer Studio v4.x for China has been installed successfully. But you should restart your computer to have all the components to take effect. Click "Yes" to restart immediately. Click "No" to restart later manually.
	Yes No

二、CCSv4 注册

1. 打开 CCSv4, 单击 OK。弹出如下对话框, 选择 Activate a License。

💱 Velcome to Code Composer Studio
No valid license for Code Composer Studio could be found.
🔿 Evaluate Code Composer Studio for 30 days
OActivate a License
⊂Step 1 - Generate License File
Note: If you already have a license file, skip to the next step.
Please note that you will need to use one of the following Host IDs during the registration process: c89cdc30059e
Register Register online using an activation code.
Use Fra: Limited License emulators and emulators built onto standard EVM and DSK development boards. This does not support using eZ430 usb sticks.
<pre>/Step 2 = .nstall License File</pre>
⊙Specify a license file
<u>B</u> rowse
OSpecify a license server
Address: Port:
OK Cancel

2. 链接到 TI 注册网址开始注册 (需有 TI 的 my.TI 账号),注册时,除了需要激活码,还需要本机 MAC 地址,如 c8.9c.dc.30.05.9e。获得 License 后,选择 Specify a license file,点击 Browse,选择 TMDSCCS-ALLN01A-v4.0.lic 文件。单击 OK,注册完毕。

3. 注意:目前 SEED-XDS510PLUS、SEED-XDS560PLUS 以及 SEED-XDS560USB 仿真器只支持 CCSv4.1.2 版本,不要升级到 4.1.2 以上版本。可通过如下步骤关闭自动升级功能,避免不必 要的问题出现。

4. 进入 CCS 的菜单 windows -> Preferences。



5. 选择 Install/Update -> Automatic Updates, 取消勾选项,从而关闭自动升级功能。



三、仿真器安装

1. 直接插上 XDS560PLUS 仿真器后(XDS560PLUS 仿真器不需要连接目标板),放入驱动光盘 (需要关闭杀毒软件),可自动安装驱动。若没自动安装。可在设备管理器中更新驱动,驱 动选择 SEED-XDS560Plus Emulator for CCS4.0。

四、CCSv4 新建工程

1. 可以选择 File->New->Others, 然后选择 C/C++->CCS Project。

😯 New 💌	💎 New
Select a wizard	Select a wizard Create a new C/C++/ASM project and let CCS create and manage the makefile.
Wizards:	<u>W</u> izards:
type filter text	type filter text
Image: Constraint of the second se	C/C++ C(C++ C(CS Project C(C) roject C(C)
⑦ < Back Next > Finish Cancel	(2) < <u>Back</u> Next > <u>Finish</u> Cancel

也可以直接选择 File->New->CCS Project,点击 NEXT,输入工程名,点击 NEXT,选择工程类型如 ARM,C6000 等。完成后点击 NEXT,可以添加参考实例,若没有则直接点击 NEXT 跳过即可。

2. 根据需求修改 Device Variant, Device Endianness 等属性后, 单击 finish 完成工程建立过程。

其他选项可保留为默认值。

😽 New CCS Project				x
CCS Project Settings			T <mark>-G</mark>	5
Select the CCS project sett	ngs.			k
Output type: Executable				•
Project settings				
Device Variant:	<select filter=""></select>	Generic C674x Device	▼ More	
Device Endianness:	little		•	
Code Generation tools:	TI v6.1.12		▼ <u>M</u> ore	
Output Format:	legacy COFF		*	
Linker Command File:			▼ Browse	
Runtime Support Library:	<automatic></automatic>		▼ Browse	
Treat as an Assembly-c	only project			
Target content				
None				
O Use DSP/BIOS v5.xx	.41.02.14		▼ <u>M</u> ore	
Enable RTSC support (required for BIOS v6.x	x, Codec Engine v3.xx, e	etc.)	
0	< <u>B</u> ack	ext > Finish	Cancel	

至此,一个新工程建立完成,可以添加各种源文件或头文件。

另外,要为新建工程创建文件,可在 "C/C++ Projects (C/C++ 项目)"视图中右键单击 项目名称,并选择 "New -> Source File (新建 -> 源文件)"。在打开的文本框中,键入包含 与源代码类型对应的有效扩展名 (.c、.C、.cpp、.c++、.asm、.s64、.s55 等)的文件名称。单击 "Finish (完成)"。

要向项目添加现有源文件,可在 "C/C++ Projects (C/C++ 项目)"选项卡中右键单击项 目名称,并选择 "Add Files to Project (将文件添加到项目)",将源文件复制到项目目录。: 也可以选择 "Link Files to Project (将文件链接到项目)"来创建文件引用,这样可以将文件 保留在其原始目录中。

五、原 CCS3.3 工程文件升级到 CCSv4 工程文件

1. 有两种途径:

1) 选择 File->Import, 弹出对话框。选择 Legacy CCS3.3 Project, 并单击 Next 按钮。

😵 Import
Select Imports legacy CCSv3.3 projects into workspace, migrating them to new format.
<u>S</u> elect an import source:
type filter text
B General B C/C++ B Existing CCS/CCE Eclipse Project Image: Segreg CCSv3.3 Project Image: Segreg CCSv3.3 Pro
Image: Concel Mext > Einish Cancel

2) 选择 Project->Legacy CCS3.3 Project。

2. 选择项目文件。可以选择单个项目文件,也可以同时导入多个项目。导入多个项目时,选择项目所在文件目录,然后在"Discovered legacy projects(已找到的旧版项目)"选中要导入的项目。另外,还可以选中 Copy projects into workspace,将项目拷贝到 CCS 默认的新建工程文件夹中。

🐨 Import Legacy CCS Project	×
Select Legacy CCS Project	
Select a legacy CCS project or a directory to search for projects.	
Select a project file:	B <u>r</u> owse
⊘ Select search-directory:	B <u>r</u> owse
Discovered legacy projects:	
	Select All
	Deselect All
© <u>C</u> opy projects into workspace	
<u>Keep original location for each project</u>	
Create a subfolder for each Eclipse project (recommended)	
(2) < <u>Back</u> <u>Next</u> > <u>Finish</u>	Cancel

3. 选择单个项目后,点击 NEXT,选择代码生成工具版本

Project	ISA Family	Tool Versi	Edit
test_led_dip	6000 C6000	6.1.12	
			_
			_

4. 指定要使用的 DSP/BIOS 版本。多数情况下可以保留 CCSv4 提供的默认版本。单击"Finish (完成)"。如果计划使用实时分析 (RTA) 和实时对象查看器 (ROV)(替代内核对象查看器) 这两种 BIOS 调试工具,就必须使用默认版本。

😚 Import Legacy CCS Project	×
Enable DSP/BIOS Tools	
Choose DSP/BIOS support enablement for migrated projects.	
DSP/BIOS support	
Migration may automatically determine DSP/BIOS support enablement, project, based on whether it contains a DSP/BIOS configuration file. To DSP/BIOS support for all migrated projects, regardless of their content the bottom-most option below.	for each enable , select
Enable DSP/BIOSv5.x support for all migrated projects	
⑦ < <u>Back Next ></u> Finish	Cancel

5. 向导完成转换过程后,新生成的 CCSv4 项目就会出现在工作区内。

注意: CCSv4 不支持 csl 库,可下载 csl 库进行连接编译或采用以前的 csl 库直接连接编译。



六、导入现有 CCSv4 工程文件

过程与 CCSv3.3 工程文件升级到 CCSv4 工程文件类似,只是在第一步时选择 File->Import->Existing CCS/CCE Eclipse Project,非 Legacy CCS3.3 Project。其他过程与上节相同。

七、工程文件的编译

1. 右键点击工程文件,选择 Properties,可以进行各种设置。例如,在 C6000 Compiler 选项 中选择 Include options 修改头文件路径;在 C6000 Compiler 选项中选择 Directory Specifier 修 改中间文件编译路径;在 C6000 Linker 选项中选择 File Search Path 修改库文件路径。

Properties for test_ram		
type filter text	C/C++ Build	⇔ ◄ ⇔
Info Builders - C/C++ Build - C/C++ Documentation - C/C++ File Types - C/C++ Indexer - CCS Build - CCS Debug - Project References - Refactoring History	Active configuration Project Type:	T) Manage
	Restore <u>D</u> efaults	Apply
)	ОК	Cancel

2. 选择 Project->Build active Project 命令进行工程编译;

注意: 该命令拦下的 Build All 命令是指将工程栏里的所有工程都进行编译,不等同于原有命令。



八、生成配置文件, 与板卡相连运行程序

1. 选择 View->Target Configurations, 然后选择 Target->New Target Configuration。输入要生成 的配置文件名称, 单击 Finish 按钮(路径可以更改)。

🐨 New Target Configuration 💽
Target Configuration
Create a new Target Configuration file.
File name: NewTargetConfiguration.ccxml
✓ Use shared location
Location: C:\Users\Administrator\user\CCSTargetConfigurations
Cancel

2. 选择相应的仿真器,以及芯片,并点击 Target Configuration。

🗐 macros.ini	💰 *NewTargetConfiguration.ccxml 🛛	
Basic		
General Set	up	
This section	describes the general configuration about the target.	
Connection	SEED XDS560PLUS Emulator	-
Device	type filter text	
	 OMAP3515 OMAP3525 OMAP3530 OMAP3630 OMAPL137 OMAPL138 Stellaris LM3S101 Stellaris LM3S102 Stellaris LM3S110 Stellaris LM3S1133 	
	•	P.
	Spectrum Digital C5416 DSK Board	*
Note: Supp	ort for more devices may be available from the update r	⊤ nanager.
•	III	
Basic Advance	ed Source	

3. 单击 Advanced,可看到一些配置,要根据芯片的不同来修改参	数;
-------------------------------------	----

New largetConfiguration.ccxml 🖄			_
rget Configuration			
Connections		Connection Properties Set the properties of the set	ected connection.
GMAPL138_0 GMAPL138_0 GENERATION GENER	Import New Add Delete Up Down Save	Board Data File Emulator I/O Port JTAG TCLK Frequency (MHz TMS/TDO Output Timing	auto generate The XDS560 is at port 0x0 Automatic with faster 35.0MHz lin Rising edge allows faster TCLK

4. 单击 C674X_0, 单击 ARM9_0,可以添加板卡的 GEL 文件,完成后单击 Save 按钮。

Target Configuration					= 🔡 🗄
All Connections		Cpu Properties			
SEED XDS560PLUS Emulator_0 Mapling_0 Subpath_0 Subpath_1 ARM9_0 Subpath_2 ETB11_0	Import New Add Delete Up Down Save	Set the properties o Bypass initialization script	f the selected c	pu.	Browse
Target Configuration					
All Connections		Cpu Properties			
 □- □- 	Import New Add	Set the properties of Bypass initialization script	the selected cp	u.	Browse
i - ☆ Subpath_1 ARM9_0 - ☆ Subpath_2 - ☆ ETB11_0	Delete Up Down	Endianess ARM Fast Download Advanced Debug Arm9 Core Target Timeouts	Little Endian On On Auto-detect Very Fast	+ + + +	

5. 将生成的配置文件 Set as Default。



6. 点击 Debug Launch,进入调试界面。

😨 C	/C++	- NewT	argetCo	onfig	guration.	ccxml -	Co
<u>F</u> ile	<u>E</u> dit	<u>V</u> iew	<u>N</u> aviga	ate	<u>P</u> roject	Targe	t
		2	-	1	•	8₌ -	g
C/C-	++ Pro	o 🕄	Target	Co	Debug	Launch	IN

😳 Debug - NewTargetConfiguration.ccxml - Code Composer Stud	dio (Licensed)					
<u>Eile Edit View Navigate Project Target Tools Scripts</u>	<u>W</u> indow <u>H</u> elp					
말 쇼 <mark>왜 월</mark>	•• @•• 9⁄ A⁄ E	🖥 C/C++ 隊 Debug				
∜ Debug ∞	🗆 🗖 🕪= Local (1) 🕅 Watch (1)	🖃 🚸 🏘 🔒	1	🕮 Cheat Sheets 🛛	
🎽 🕪 🕶 📓 🐂 🔍 🗇 24 🗇 18 🦉	🗄 🛸 🔹 🖻 🎽 Name	Value	Address	Туре	Set Up Target C	Configuration
					 Introduction 	
					You have opened th	e System Setup Editor to
					create a new target existing target confi	configuration or to modify an iguration.
					Target configuration	n now uses a flexible XML
					schema that helps To developers define th	exas Instruments and an expecific details. Instead of
					using the registry, C	ode Composer uses a
					hierarchy of related	XML files to define a rd/device combination. Since
	•			Þ	the target configurat	tions are XML files, they are
ℜ NewTargetConfiguration.ccxml ⊠					easily deleted, copie	d, and displayed.
Basic				*	Target configuratio	ons can be assigned to These projects automatically
General Setun	Adus	need Fetun			use the assigned co	nfigurations. When you create
This section describes the general configuration about the targ	et.	nceu setup		E	a new configuration, User Defined folder	, you can store them in the (by default) or browse to
Connection SEED XDS560PLUS Emulator	→ <u>Tarc</u>	et Configuration: lists the config	guration options for the targe	t.	select the project/fo	lder you want to assign this
Board or Device type filter text						
DA810/DA80x	Save	Configuration			🗱 Do not show this	s again
DA830/DA828	Sav	c			🙀 Disable all cheat	sheets
OMAP3430					Click to Begin	
OMAP3503					Create/Update Sim	ple Target Configuration
C OWNPOSIS						
Basic Advanced Source						
1* ₽0 8						📀 ↓ 0.04K/S ↑ 0K/S 🧉

7. 点击 Connect Target,与板卡进行连接。

<u>F</u> ile	<u>E</u> dit	<u>V</u> iew	<u>N</u> avigate	<u>P</u> roject	Target <u>T</u> ools Scripts <u>W</u> i
		R 🖓			显态区经 🎋
2	• 🖗	•	⇔ • ⇔	*	Disconnect Target

8. 连接后,单击 Load Program 按钮 (在 Connect Target 按钮之后),就可以加载编译好的.out 文件。单击 Run 按钮,运行程序。

九、其他工具

On-chip flash 工具: CCS->Tools-> On-chip Flash 的 on-chip flash 窗口,可以配置时钟等参数, 然后在 C/C++ project 窗口,右键点击工程名,选择如下命令,ccs 自己进行程序烧写。

