## HC32F(L) 学习板快速入门(IAR)

- 一、下载 MCU SDK 资料包,在"资料下载"文件夹找到 MCU 对应 SDK 资料包,并下载到本地电脑。
  - 1. https://www.hdsc.com.cn/Mcu
  - 2. <u>https://www.hdsc.com.cn/Category92</u>
  - 3. 百度网盘下载: <u>https://pan.baidu.com/s/1hlcBW0r0g\_1w3spzE2SbEQ</u> 提取码: kj7u
  - 4. 腾讯微云下载: <u>https://share.weiyun.com/mYaXwqf6</u>
- 二、安装 IAR 后,拷贝华大 SDK 包 config 目录全部文件到 IAR 安装 config 目录。

华大 DDL 库是用 IAR7.70 编写,如果要使用华大 DDL 库, IAR 版本必须为此版本或以上版本。

IAR7.70 评估版下载地址: <u>https://pan.baidu.com/s/11F84VyDFosLFWSts1x6pog</u> 提取码: sck0

华大 SDK 包 config: <u>HC32L(F)xxx\_SDK\集成开发环境支持包\HC32L(F)xxx\_IDE\_Rev1.0.0\HC32L(F)xxx\_IDE\_Rev1.0.0\IAR\_IDE\config</u>

IAR 安装 config 目录: <u>IAR Systems\Embedded Workbench 7.7\arm\config\</u>

三、拷贝 DDL 例子到没有中文目录位置,打开工程并编译。

DDL 例子: <u>HC32L(F)xxx SDK\驱动库及样例\</u>

打开工程: <u>HC32L(F)xxx\_DDL\_Rev1.x.x\HC32L(F)xxx\_DDL\_Rev1.x.x\example\xxx\EWARM\</u>

四、硬件平台安装,华大 DEMO 自带"CMSIS-DAP"调试器,只需插 USB 就可以调试和下载。如果选"Jlink"调试器,必须去掉 DEMO 上的"CMSIS-DAP"调试器。详细硬件见下图。



CMSIS-DAP 调试器



JLINK 调试器

1 / 4

五、如图鼠标右键,选 Options。



- 六、选择"Debugger"。(下面两步根据调试器选择一步设置即可。)
  - 1. CMSIS-DAP 调试器:

①在	"Driver"	下选择	"CMSIS	DAP"	0
----	----------	-----	--------	------	---

Category:									Factory Setting:
General Options Static Analysis Runtime Checking C/C++ Compiler Assembler	^	Setup	Download	Images	Extra C	Options	Multicore	Plugins	
Output Converter		Driver				Run to			
Build Actions Linker		CMSI	S DAP	~		main			
Simulator Angel CADI CMSIS DAP GDB Server IAR ROM-monitor I-jet/JTAGjet			Use macro f	ile(s)					]
J-Link/J-Trace TI Stellaris Macraigor PE micro		Devi	ce descriptio Override de	on file fault					
RDI ST-LINK Third-Party Driver	~	\$P	ROJ_DIR\$\'	\\\mci	J\EWAR	M\HC32	L13X.svd		

②选"CMSIS DAP\Interface"选"SWD", 点击OK。

Category:		Factory	Settings
General Options  Static Analysis Runtime Checking C/C++ Compiler Assembler	Setup Interface	Breakpoints	
Output Converter Custom Build Build Actions Linker Debugger Simulator Angel	Probe config Auto From file Explicit	CPU: Select	
CADI CMSIS DAP GDB Server IAR ROM-monitor I-jet/JTAGjet J-Link/J-Trace TI Stellaris Macraigor PE micro	Interface O JTAG SWD	Explicit probe configuration Multi-target debug system Target number (TAP or Multidrop 0 Target with multiple CPUs CPU number on 0	
RDI ST-LINK Third-Party Driver V	Interface Auto detect ~		

×

2. JLINK 调试器:

①在"Driver"下拉选择"J-LINK/J-Trace"。

Options for node "crc\_crc32"

General Options	7						·
Static Analysis							
Runtime Checking							
C/C++ Compiler	Setup	Download	Images	Extra Options	Multicore	Plugins	
Assembler			-			-	
Output Converter							
Custom Build	Drive	r		✓ Run to			
Build Actions	Islin	k/I-Trace	~	main			
Linker		NJ Hace	-	main			
Debugger	Set	in macros					
Simulator	300	ap macros					
Angel	Use macro file(s)						
CADI							
CMSIS DAP							***
GDB Server							
IAR ROM-monitor							100
I-jet/JTAGjet							
J-Link/J-Trace							
TI Stellaris	Dev	rice description	on file				
Macraigor							
PE micro		✓ Override default					
RDI	2	(PROLDIR()))))) mail/EWARM/HC32L19X avd					
ST-LINK	¥	\$PRC9_DIR\$\\\\mcu\EVVARIVI\ΠC52ET3X.sva					
Third-Party Driver 🗸							

②选"J-LINK\Connection"选"SWD",点击OK。

alogoly.				Factory Setting			
eneral Options 🔺							
tatic Analysis							
Untime Checking	Cata Connect	ion Realization					
Assembler	Setup Connection Breakpoints						
Output Converter	Communicatio	on					
Custom Build	OUSB:	Device 0	Serial no:				
Build Actions		L					
Linker	O TCP/IP:	IP address	2				
Debugger							
Simulator	IP address:	aaa.bbb.ccc.ddd	Serial no:				
Angel		·	-1 (martine 1				
CADI	Interface	JTAG scan chain					
CMSIS DAP		ITAG scan chain	with multiple targets				
GDB Server	() JTAG						
Liet/ITAGiet	-	TAP number:	0				
14 ink/1-Trace	() SWD	Casa shate	contains non ADM de				
TI Stellaris		scall chain	contains non-Aitim de	vices			
Macraigor		Preceedi	ng bits: 0				
PE micro							
RDI	Log commu	nication					
ST-LINK							
Third-Party Driver 🗸	\$PROJ DIR\$\cspycomm.log						

七、CMSIS-DAP 调试器适用, JLINK 调试器跳过此步。

1. 第一次运行, IDE 提示 Memory Configuration Alert,选择"OK",进入 Memory Configuration。

Memory	Configuration Alert	Х
I	The first time that you debug a project in C-SPY, you must setup or review the memory configuration.	r.

或者选择菜单"CMSIS-DAP\Memory Configuration"也可以进入 Memory Configuration。

D 🚅 🖬 🕼 🎒 👗 🖣	Memory Configuration	🏷 🏷 🔀 🗗 🗢 🗢 🖉 🛃 🚺 📑 🖽
Workspace	Disable Debugger Cache	
Release	Disable Interrupts When Stepping	**********
Files	Leave Target Running	018, Huada Semiconductor Co.,Ltd All ri
🗆 🗇 crc_crc32 - Relea	ETM Trace Settings	s owned and published by:
	ETM Trace Save	ctor Co., Ltd ("HDSC").
	ETM Trace	INSTALLING OR USING THIS SOFTWARE, YOU
	Function Trace	S AND CONDITIONS OF THIS AGREEMENT.
L⊞ Cutput	Vector Catch	ontains source code for use with HDSC
	Timeline	s software is licensed by HDSC to be ad ems utilizing HDSC components. HDSC sha
	Function Profiler	misuse or illegal use of this software n. HDSC is providing this software "AS
	Session Overview	ble for issues arising from incorrect u
	Breakpoint Usage	

2. 按图选择①②③④⑤配置 Memory。③根据芯片 FLASH 大小设置。完成后可以下载和调试。



八、MCU 进入深度睡眠模式,SWD 停止工作,不能调试和下载软件。详细解决方案请请参考: "应用笔记\MCU 低功耗模式调试说明 Rev1.0"文件。