## Software Tool Chain Getting Started

## 1 Install Tool Chain

- 1.1 Tool Chain: Sourcery CodeBench Lite ARM EABI Release
  - 1.1.1 <u>http://www.mentor.com/embedded-software/sourcery-tools/sourcery-codeben</u> ch/editions/lite-edition/
  - 1.1.2 Configure the environment to add the path of the tool chain
    - 1.1.2.1 After installing tool chain, a new path will be added to Windows

Environment i.e. Sourcery\_CodeBench\_Lite\_for\_ARM\_EABI\bin

- 1.1.2.2 Restart the computer to make the new environment effective
- 1.1.3 Test the installation
  - 1.1.3.1 To test if the tool chain is successfully installed, you can type

following command under MS-DOS prompt

🖬 命令提示字元	
Microsoft Windows [版本 6.1.7600] Copyright (c) 2009 Microsoft Corporation. All rights reserved.	• 111
C:\Users\Ying>arm-none-eabi-gccversion arm-none-eabi-gcc (Sourcery CodeBench Lite 2012.09-63) 4.7.2 Copyright (C) 2012 Free Software Foundation, Inc. This is free software; see the source for copying conditions. There is NO warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.	Ŧ

#### 1.2 Install eclipse IDE

- 1.2.1 The eclipse IDE is available at <a href="http://www.eclipse.org/downloads/">http://www.eclipse.org/downloads/</a>
- 1.2.2 You need to install C/C++ cross compiler

## 2 Start compiling example program

2.1 Run eclipse and select a workspace: BSDrls\Examples . You can find the path of the example program at the CD with path: BSDrls\Examples

😂 Workspace	e Launcher	X
Select a works	space	
Eclipse SDK Choose a wo	Cstores your projects in a folder called a workspace. vorkspace folder to use for this session.	
Workspace:	: F:\tmp\BSDrls\Examples	
🔲 Use this a	as the default and do not ask again	
	OK Cancel	

#### 2.2 Workbench



- 2.2.1 C/C++ will show at the upper right corner
- 2.2.2 All the example program comes with Makefile. You can use the Makefile to compile these programs
  - 2.2.2.1 Use Modify Make Target to edit the

Modify Make Target				
Target name: all				
Make Target				
Same as the target name				
Make target: all				
Build Command				
Use builder settings				
Build command: cs-make				
Build Settings				
Stop on first build error				
Run all project builders				
OK Cancel				

2.2.3 Build Make Target means eclipse will use Makefile setting to compile the program to target





2.2.4 Once Build Finished, you will find target execution file *user\_main.aff* is generated and available at

E01\_echoServer\_netconn\_api\build\gcc\output

# **3 Upload Binary File to Device**

3.1 Change to Administrator login before running ManagerUtility



### 3.2 Search device



### 3.3 Click the search icon to discover the devices

🗿 Devices List						
No	Device_Name	Model_Name	IP	MAC	Password	CommandPo
1	Aport-212	Aport-212	192.168.2.127	00-13-48-FF-FF-FF	<b>a</b>	5001
1			III			4
four	d dovico: 1					
loui						
						<b>.</b>

Sconfigure Device: 00-13-48-FF-FF-FF				
	Basic Settings Advance	ed Options		
ŹĽ	Item	Value		
Upgrade	Information			
	Firmware Version	FMW V1.006		
	Model Name	Aport-212		
	MAC	00-13-48-FF-FF-FF		
$\mathcal{O}_{\mu}$	Basic Settings			
Default	Device Name	Aport-212		
	Lan Settings			
Disconnect	IP Configure	Static		
	IP Address	192.168.2.127		
	Netmask	255.255.255.0		
	Gateway	0.0.00		
	Change Password 🗞 Save to Device			

### 3.4 Click the device to configure its settings

3.5 Click Upgrade button to upload the binary file *user\_main.aff* 

Select Firmwa	re file
i\build\gcc\ou	tput\user_main.af
	Browse

3.6 Before upload, A double check window will appear to ensure the kernel version is the right one to upload

🕑 Messag	e	×
2	FMW V1.006 Continue to upgrade ?	
	OK	Cancel

3.7 Once completed, the device will reboot

🥑 Messag	e	X
1	Device rebooting now	
	OK	

- 3.8 Connecting the Serial Console
  - 3.8.1 Serial console is settings is 115200, N81, ANSI(Terminal type)
  - 3.8.2 The serial console shows system and debug message
  - 3.8.3 User can show the debug message by using *console\_write* function

