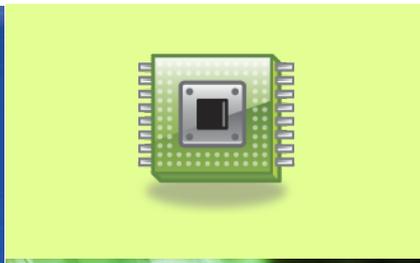


# Access CPU with AndeSight



# Create Empty Project



**1. Click to create project**

**2. Select ICE**

**3. Select your chip profile**

**4. Create project**

Chip Profile Name	Chip ID	CPU
▶ AE100		
▲ AE210P		
ADP-AE210P-D1088	ADP-AE210P-D1088	[D1088]
ADP-AE210P-E830	ADP-AE210P-E830	[E830]
ADP-AE210P-N1068A-S	ADP-AE210P-N1068A-S	[N1068A-S]
ADP-AE210P-N705-S	ADP-AE210P-N705-S	[N705-S]
ADP-AE210P-N801-S	ADP-AE210P-N801-S	[N801-S]
ADP-AE210P-N820	ADP-AE210P-N820	[N820]
ADP-AE210P-N968A-S	ADP-AE210P-N968A-S	[N968A-S]
▲ AE3XX		
ADP-AE3XX-D15F	ADP-AE3XX-D15F	[D15F]
ADP-AE3XX-N15F	ADP-AE3XX-N15F	[N15F]
▲ AG101P		
ADP-AG101P-16MB-E830-32I	ADP-AG101P-16MB-E830-32I	[E830]
ADP-AG101P-16MB-N705-S-32I	ADP-AG101P-16MB-N705-S-32I	[N705-S]
ADP-AG101P-16MB-N801-S-32I	ADP-AG101P-16MB-N801-S-32I	[N801-S]
ADP-AG101P-16MB-N820-32I	ADP-AG101P-16MB-N820-32I	[N820]
ADP-AG101P-4GB-D1088-SPU-32I	ADP-AG101P-4GB-D1088-SPU-32I	[D1088-SPU]
ADP-AG101P-4GB-N1068A-S-32I	ADP-AG101P-4GB-N1068A-S-32I	[N1068A-S]
ADP-AG101P-4GB-N1068A-SPU-32I	ADP-AG101P-4GB-N1068A-SPU-32I	[N1068A-SPU]

# Enter Project Name



**C Project**

Create C project of selected type  
Chip Profile: ADP-AE210P-N820

Project name:

Use default location

Location:

Choose file system:

Project type:

- Andes Executable
  - Empty Project
  - Hello World ANSI C Project
- Andes Static Library
- Makefile project

Toolchains:

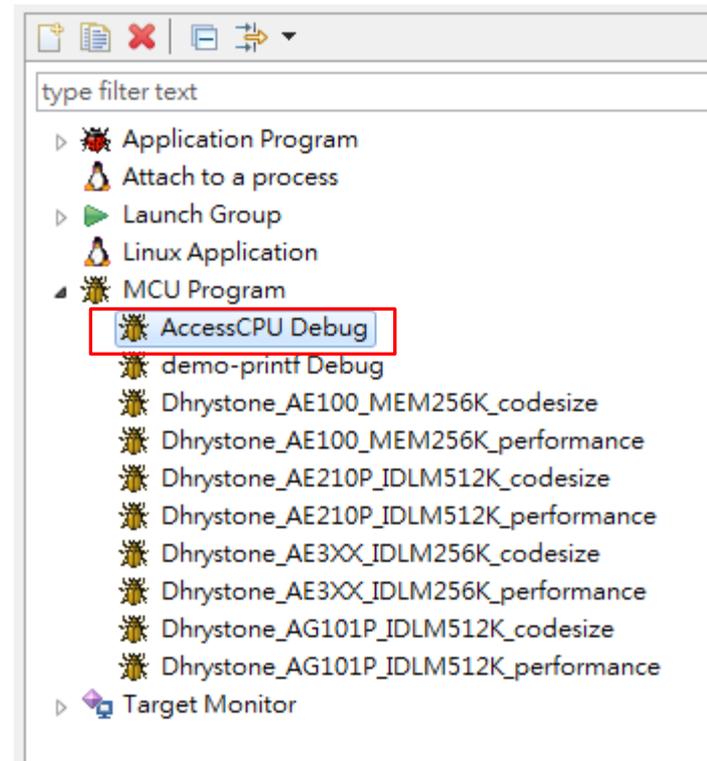
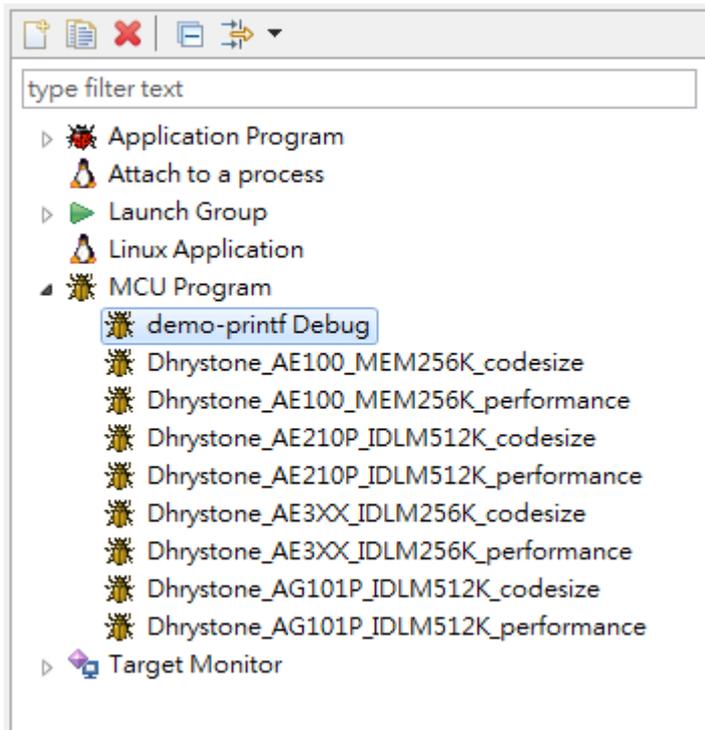
- nds32le-elf-mcplib-v3m
- nds32le-elf-newlib-v3m

Show project types and toolchains only if they are supported on the platform

# MCU Program Settings



- ❖ Right click project > Debug As > Debug Configurations > Double click "MCU Program" if your project is not in the list



# MCU Program Settings



The screenshot shows the 'AccessCPU Debug' settings dialog in an IDE. The left pane shows a tree view with 'AccessCPU Debug' selected and highlighted with a red box and the number '1'. The right pane has tabs for 'Main', 'Debugger', 'Startup', 'Tracer', 'Source', and 'Common', with 'Startup' selected and highlighted with a red box and the number '2'. The 'Startup' tab contains four sections: '1. GDB Initialization Commands' with 'Reset and Hold' checked and highlighted with a red box and the number '3'; '2. Binary File Options' with 'Load binary file' unchecked; '3. Runtime Options' with 'Set program counter at (hex):', 'Set breakpoint at:', and 'Resume' all unchecked; and '4. GDB Run Commands' which is empty. At the bottom right, the 'Debug' button is highlighted with a red box and the number '4', and the 'Close' button is visible next to it. A 'Revert' button is also present above the 'Close' button. The status bar at the bottom left indicates 'Filter matched 21 of 27 items'.

# CPU Registers



The screenshot shows the Andes Studio IDE interface. On the left, the 'Project Expl' pane shows a target named 'ADP-AE210P-N820 ICE:'. A red callout bubble with the text 'Target Running' points to the target icon. The 'Debug' pane shows the target is running, with a 'Thread #1 (Suspended : User Request)' and a 'gdb(7.7.0.20140207)-78' process. The 'Registers' pane is active, showing a list of CPU registers. A red callout bubble with the text 'CPU registers' points to the 'Registers' tab. The 'Registers' pane displays a table of registers with their names and values.

Name	Value
▶ All Registers	
▶ General Purpose Registers	
▶ Configuration System Registers	
▶ Interruption System Registers	
▶ MMU System Registers	
▶ mr0 (MMU_CTL)	{0x0, NTC0 = 0x0, NTC1 = 0x0}
▶ mr6 (ILMB)	{IEN = 0x1, ILMSZ = 0x8, (raw
▶ IBPA	0x0
▶ ILMSZ	0x8 - 1024 kB
▶ IEN	0x1 - Enabled
▶ mr7 (DLMB)	{DEN = 0x0, DLMSZ = 0x7, Df
▶ EDM System Registers	
▶ Performance Monitoring	
▶ Implementation-Dependent Regis	

# SoC Registers and Memory



(x)= Variables Expressions **Memory**

Monit + - ✕ ✎

0x0 0x0 : 0x0 <Traditional> + New Renderings...

0x00000000	EC010048	96000048	94000048	92000048	H..iH...H...H...
0x00000010	90000048	AB000048	C7000048	E3000048	H...H...«H...ÇH...ä
0x00000020	FF000048	59010048	57010048	5A010048	H..ÿH..YH..WH..Z
0x00000030	53010048	51010048	4F010048	56010048	H..SH..QH..OH..V
0x00000040	4B010048	49010048	47010048	45010048	H..KH..IH..GH..E
0x00000050	50010048	41010048	3F010048	3D010048	H..PH..AH...?H..=
0x00000060	3B010048	39010048	37010048	35010048	H..;H..9H..7H..5

Registers **SoC Registers** Memory Map

Name	Value	Address
APBBRG		
SMU		
UART1		
SYSVER	0x02011000	0xf02000
HWCFCGR	0x00000000	0xf02010
OSCR	0x00000010	0xf02014
Receiver Buffer/Transm	0x00000000	0xf02020
Interrupt Enable/Divisor	0x00000000	0xf02024
Interrupt Identification /	0x00000001	0xf02028
Line Control	0x00000000	0xf0202c
Modem Control	0x00000000	0xf02030
Line Status	0x00000061	0xf02034
Modem Status	0x00000000	0xf02038
Scratch Register	0x00000000	0xf0203c