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Getting C4ARMs working on 64bit machines

C4ARMs was never designed to work on 64bit machines.

Getting C4ARMs to work on a 64bit machine is a two stage process:-

Stage 1: Update the bootloader on your device
Stage 2: Get programmers notepad to work with the new bootloader

Issue 1: Updating the bootloader

Inside the linked zip file below is a document detailing how to update your bootloader using ATMELs SAM-BA program.
Also included is the bootloader.bin file.

http://www.matrixtsl.com/resources/getresource.php?id=888

Issue 2: Programmers notepad not programming ARM device.

There are some steps needed to get the programmers notepad to program the ARM devices.
a) Changing the directory of the exercises
The first thing we need to do is to move the exercises from their current location to a new one in the root directory.

The exercises are by default located at:
C:\Program Files (x86)\Matrix Multimedia\C4ARMs\course
You will need to copy the "**Exercises**" folder and paste the copy directly onto the root (C:\ (this maybe different depending on your computer). So your new directory will be located at.
C:\Exercises
Unfortunately you cannot call the exercises from the course and if you want to view an exercise you will have to go into this newly created directory and load the exercise you want to view directly (E.g. Exercise 1.1 in the course will be located under the folder C:\Exercises\Ex11).

b) Changing the path variables for the course

Due to 64 bit machines placing 32 bit programs into the "Program Files (x86)" folder, programmers notepad now no longer knows where the programs it uses to compile are located. We must now change the path variables to allow programmers

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notepad to find its compiler.

We do this by going to the Environmental Variables options in Windows.

Control Panel >> **System** >> **Advanced System Settings** (top left menu) >> **Environmental Variables** (bottom button under Advanced tab)

Once in the Environmental Variables section scroll down the **System variables** menu till you find an option called Path (highlighted in red circle on picture below).

Double click on "Path" and it will open up another dialog window which contains two fields, click on the "Variable value" field as indicated in the picture below by the green circle.

Once your cursor is in the variable value section move the cursor till you find these two values:

C:\Program Files\Matrix Multimedia\WinArm\bin;
C:\Program Files\Matrix Multimedia\WinArm\utils\bin;

They will be in one long line but there should be both there, once you have found each one, change them to say:

C:\Program Files (x86)\Matrix Multimedia\WinArm\bin;
C:\Program Files (x86)\Matrix Multimedia\WinArm\utils\bin;

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Note: Please ensure you change nothing else, one recommendation would be to before you edit the path, to copy it to a text file and save it as a backup

c) Editing the command line parameters in programmers notepad

Finally we need to change a command line parameter in programmers notepad so that it can find the correct files it needs to be able to compile the programs.
Load up programmers notepad by clicking on the programmers notepad file in one of your exercises located in c:\exercises (see step "a)"). This will give us something to test that it has compiled correctly.

Within programmers notepad, navigate to navigate to the following place:

Tools >> Options >> Tools

Once in the tools section there will be a drop down menu on the right hand side make sure that the Scheme (red circled) is set to (None – Global Tools).

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Once selected there will be three items in the menu, as shown in the above diagram. Select the Build Project line and then click the Edit button.

Once in the edit section navigate down to the **Parameters** field and edit what is written in blue from before and after the edit you make.

Before: all

After: all SHELL="C:/PROGRA~2/Matrix Multimedia/WinArm/utils/bin/sh.exe"

Now you should be able to load any exercise from the C:\Exercises folder and compile any of these exercises, alternatively you will be able to create your own C files and compile these too, I would advise these exist on the root somewhere and not in "My Documents" or somewhere similar.

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