Subject: Re: Raspberry (Raspbian) - ARM 6 Core + Ultimate++?
Posted by Didier on Sat, 24 Nov 2012 19:21:50 GMT
View Forum Message <> Reply to Message

Hi wolfgang,

if you have U++ running on the Raspberry PI the half of the work is done : you all the bibs and the includes that you need to compile apps for the Raspberry PI.

Here is what I did to make a cross compile environment for the gumstix (ARM cortex-A8).

1 - Make a copy of /usr/lib and /usr/include from the Raspberry PI to you're computer ==> this is the easiest way to get all the compatible libs and includes.

2 - Compile a GCC suite for the ARM11
To do this I used open-embedded environnement. But you can try this
http://raspberrypi.stackexchange.com/questions/1/how-do-i-bu
ild-a-gcc-4-7-toolchain-for-cross-compiling

3 - You need a correct U++ Build Method (xxx.BM files)
I have attached the one I use to cross compile towards cortex-A8
The important things to notice are :

gcc name (arm-angstrom-linux-gnueabi-g++ in my case)
--sysroot=PATH_TO_COPIED_USR options added to compiler and linker (to tell gcc to use the wright libs)
path to the gcc bins directly set
-mcpu=cortex-a8 -mfpu=neon : options for cortex-A8
remove SSE2 form the default options (SSE2 is not part of ARM instructions set)

4 - Report the corrections made to Upp code (/Core/Config.h) : add __arm__

5 - Some Upp pitfalls/bugs on ARM to be aware of :
MT does not work : apps get stuck in infinite loop on start ==> I didn't have time to look into it

This should help you start up quickly

File Attachments

1) GCC_ARM_example.bm, downloaded 331 times