
Subject: xmos builder

Posted by [brown](#) on Fri, 10 Jul 2015 10:52:46 GMT

[View Forum Message](#) <> [Reply to Message](#)

Hi, I have a plan to migrate my embedded sw project to upp infrastructure. (I am using upp on desktop several years ago.)

So I have a plan to write some new class(es) to uppsrc\ide\Builders.

Is anyone else interesting on this task/project?

Short introduction of the projects goals/ideas:

To be able to compile an xmos project some rational way.

xmos is company, xcore is a community for this multithread microcontrollers. This one is a little bit differs from the others.

The funny thing on this architecture is the xmos cpu have its hardware implementations for typical multithread problems like:

- they have own c like language namely xc, which contains multithread additions. CPU have thread specific registers and instructions.

- have atomic send message and synchron between threads and outside of the controller (channels).

- have resources: channel, clock, sync, thread, io. These are managed by mostly on the hardware.

- have kernel and user mode. (XC compiler creates all of kernel codes, like allocation&lock, thread start/fork/join etc.

- they have a modified eclipse ide & CDT. But it is coded in java, and it is a)slow b)dislike how it works.

There are a gcc like xc language compiler xcc and xmake, xsim and similar binary tools... So I hope this task will be not so difficult. The actual GccBuilder fails on calling of these tools right now, because these are a little bit different. There are some extra or changed arguments, it requires some environment variables, and I think there is some memory size issues too, etc...

I spent one day to this problem in the past week, and I decided to not use the actual upp ide, at this moment. Some improvement needed.

First of all I would like to know, if someone else is interested on this area...

Thanks.

B.

Subject: Re: xmos builder

Posted by [mirek](#) on Fri, 10 Jul 2015 13:39:51 GMT

[View Forum Message](#) <> [Reply to Message](#)

brown wrote on Fri, 10 July 2015 12:52Hi, I have a plan to migrate my embedded sw project to

upp infrastructure. (I am using upp on desktop several years ago.)
So I have a plan to write some new class(es) to uppsrc\ide\Builders.

Is anyone else interesting on this task/project?

Short introduction of the projects goals/ideas:
To be able to compile an xmos project some rational way.

xmos is company, xcore is a oommunity for this multithread microcontrollers. This one is a little bit differs from the others.

The funny thing on this architecture is the xmos cpu have its hardware implementations for typical multithread problems like:

- they have own c like language namely xc, which contains multithread additions. CPU have thread specific registers and instructions.

- have atomic send message and synchron between threads and outside of the controller (channels).

- have resources: channel, clock, sync, thread, io. Thease are managed by mostly on the hardware.

- have kernel and user mode. (XC compiler creates all of kernel codes, like allocation&lock, thread start/fork/join etc.

- they have a modified eclipse ide & CDT. But it is coded in java, and it is a)slow b)dislike how it works.

There are a gcc like xc language compiler xcc and xmake, xsim and similar binary tools... So I hope this task will be not so difficult. The actual GccBuilder fails on calling of these tools right now, because these are a little bit different. There are some extra or changed arguments, it requires some enviroment variables, and I think there is some memory size issues too, etc...

I spent one day to this problem in the past week, and I decided to not use the actual upp ide, at this moment. Some improvement needed.

First of all I would like to know, if someone else is interested on this area...

Thanks.

B.

Sounds good and relatively easy to do for me...

Mirek
