How to run an executable on the XMOS simulator

This application note is a short how-to on programming/using the xTIMEcomposer tools. It shows how to run an executable on the XMOS simulator.

Required tools and libraries

This application note is based on the following components:

- xTIMEcomposer Tools - Version 14.0.0

Required hardware

Programming how-tos are generally not specific to any particular hardware and can usually run on all XMOS devices. See the contents of the note for full details.

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1 How to run an executable on the XMOS simulator

Compile the following code:

```
#include <print.h>

int main() {
  printstr("Hello World!\n");
  return 0;
}
```

2 To run using the simulator

From within xTIMEcomposer Studio, select *Run -> Run Configurations*, and double click on the *xCORE Application* option. This will create a new Run configuration. In the *Device options* group, check the *simulator* box.

Alternatively, to run from the command line:

```
xsim a.xe
```

This will execute the given program (a.xe) until completion, in this case displaying 'Hello World! in the console.

3 To debug using the simulator

From within xTIMEcomposer Studio, select *Run -> Debug Configurations*, and double click on the *xCORE Application* option. This will create a new Debug configuration. In the *Device options* group, check the *simulator* box.

Alternatively, to debug from the command line:

```
xgdb a.xe
```

This will start the XMOS debugger. To tell the debugger to connect to the simulator use:

```
connect -s
```

Loading the program onto the target (xgdb command: *load*), and continuing (xgdb command: *continue*) will cause the program to run to completion and display 'Hello World!' on the console.