

**Application Note: AN10097** 

# 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.



## 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.



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