

Application Note: AN10092

How to use xSCOPE I/O on the XMOS simulator

This application note is a short how-to on programming/using the xTIMEcomposer tools. It shows how to use xSCOPE I/O 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 use xSCOPE I/O on the XMOS simulator

Compile the following code:

```
#include <print.h>
int main() {
    printstr("Hello World\n");
    return 0;
}
```

Note: xSCOPE is enabled and the *ioMode* is set to *basic* in the config.xscope file.

2 To run using the 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. xSCOPE I/O can be enabled by checking the *Offline* box in the xSCOPE tab. Running this example will then display the output in the console view.

3 To run from the command line

```
xsim a.xe -xscope '-offline xscope.xmt'
```

It is worth noting however, that the handling of system calls by the XMOS simulator is instantaneous from the point of view of the target. Therefore, using xSCOPE for I/O redirection will make the target run slower, thus is of limited use in reality.