

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.



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