

**Application Note: AN10094** 

# How to use realtime xSCOPE on the XMOS simulator

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

Compile the following code:

```
#include <stdlib.h>
#include <xscope.h>
int main() {
   while (1) {
       xscope_int(VALUE, rand() * 100);
   }
   return 0;
}
```

Note: The probe used in the above example is defined 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. Realtime xSCOPE can be enabled via the checkbox in the xSCOPE tab. Running this example will open the Real-Time Scope view and display the corresponding values.



#### 3 To run from the command line

xsim bin/Debug/realtime\_Debug.xe -xscope '-realtime localhost:12345'

Run the above. To visualise the output open the xTIMEcomposer studio and select *Tools->XRTScope*. In the *Real-Time Scope* view, click the *Connect* button in the view toolbar. Select the IP address/port pair that matches the above command line, check the *is simulation* box, then click *Connect*.



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