

How to use the XSCOPE continuous event type

version	1.0.1
scope	Example. This code is provided as example code for a user to base their code on.
description	How to use the XSCOPE continuous event type
boards	Unless otherwise specified, this example runs on the SliceKIT Core Board, but can easily be run on any XMOS device by using a different XN file.

XSCOPE is fully supported on hardware platforms which provide an XMOS link between the target device and the XSYS development connector.

View the document (XSCOPE overview (see [XM-000957-PC](#))) for further information on tracing data from XMOS applications.

This example provides a simple demonstration of using the XSCOPE continuous event type for data logging from within an XMOS application. The continuous event type can be used to capture and log the value of specific variables within an application to allow debugging.

This example assumes you are familiar with creating a run configuration and enabling the associated XSCOPE options in that run configuration in xTIMEcomposer Studio or using the command line tools.

In order to use XSCOPE the correct header file must be included in the application

```
#include <xscope.h>
```

The `xscope_probe_data()` function is used to send the contents of user variable `data_value_1` to XSCOPE probe id 0 for logging

```
void output_data_1(unsigned int data_value_1) {  
    xscope_probe_data(0, data_value_1);  
}
```

The `xscope_probe_data()` function is used to send the contents of user variable `data_value_2` to xscope probe id 1 for logging

```
void output_data_2(unsigned int data_value_2) {  
    xscope_probe_data(1, data_value_2);  
}
```

Using the XSCOPE constructor which gets called automatically by the XSCOPE system register 2 probes using event type XSCOPE_CONTINUOUS which will collect data of type XSCOPE_UINT

```
void xscope_user_init(void) {
    xscope_register(2,
        XSCOPE_CONTINUOUS, "Continuous Value 1",
        XSCOPE_UINT, "Value",
        XSCOPE_CONTINUOUS, "Continuous Value 2",
        XSCOPE_UINT, "Value");
}
```



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