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# How to use the SPI library as SPI master

This application note shows how to use the SPI library to make the xCORE drive an SPI bus as SPI master. The application is the simplest example of setting up the library and performing a couple of transactions. The code can then be run in simulation to see the outputted waveforms.

The note covers both the synchronous and asynchronous use of the SPI master components provided from the library.

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## Required tools and libraries

- xTIMEcomposer Tools - Version 14.0
- XMOS SPI library - Version 3.0.0

## Required hardware

This application note is designed to run in simulation so requires no XMOS hardware.

## Prerequisites

- This document assumes familiarity with the XMOS xCORE architecture, the SPI bus protocol, the XMOS tool chain and the xC language. Documentation related to these aspects which are not specific to this application note are linked to in the references appendix.
- For descriptions of XMOS related terms found in this document please see the XMOS Glossary<sup>1</sup>.
- For the full API listing of the XMOS SPI Device Library please see the library user guide<sup>2</sup>.

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<sup>1</sup><http://www.xmos.com/published/glossary>

<sup>2</sup>[http://www.xmos.com/support/libraries/lib\\_spi](http://www.xmos.com/support/libraries/lib_spi)