

How to perform timed output on a port

version	1.0.1
scope	Example. This code is provided as example code for a user to base their code on.
description	How to perform timed output on a port
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.

An output operation can be performed on a port at a specific time with respect to its clock.

The following statement performs a timestamped output, outputting the value 0 to the port `toggle_port` and reading into the variable `count` the value of the port counter when the output data is driven on the pins.

```
toggle_port <: 0 @ count;
```

The statements

```
count += 3;  
toggle_port @ count <: 1;
```

cause the port to wait until its counter equals the value `count+3` and then drive its pin high. The next two statements delay the driving of the pin low by 2 clock periods.

```
count += 2;  
toggle_port @ count <: 0;
```

The ability to control output on a port can also be achieved using a timer resource from the processor. Note however that the ports time operator is 16-bit whereas the processor timer resource is 32-bit. See example “How to control port output data rates with timers” for further information.