

How to input on multiple ports in parallel

version	1.0.1
scope	Example. This code is provided as example code for a user to base their code on.
description	How to input on multiple ports in parallel
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.

By configuring more than one buffered port to be clocked from the same source, a single thread can cause data to be sampled in parallel on these ports.

The statement

```
sync(in_port_a);
```

causes the processor to wait until the next falling edge on which the last data in the buffer has been sampled for a full period, ensuring that the next instruction is executed just after a falling edge. This ensures that the subsequent two input statements in the loop

```
while(1) {  
    in_port_a :> in_val_a;  
    in_port_b :> in_val_b;  
}
```

are both executed in the same clock period.