How to use a select function

version	1.1.0
scope	Example. This code is provided as example code for a user to base their code on.
description	How to use a select function
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.

Select statements can be implemented as functions, allowing their reuse in different contexts.

The declaration

```
select channel_input(chanend c_a, chanend c_b)
```

declares `channel_input` to be a select function that takes two arguments `c_a` and `c_b`. The body of the select function adheres to the same rules as the select statement.

```
{
  case c_a :> int chnl_input_a :
    printstr("Channel Input A Received ");
    printintln(chnl_input_a);
    break;
  case c_b :> int chnl_input_b :
    printstr("Channel Input B Received ");
    printintln(chnl_input_b);
    break;
}
```

You can call the select function from the relevant location in the program. In this example the select function is nested within a select statement where it is inputting data from either one of the two channel ends `c_a`, `c_b` or from the input port `port_in`

```
select {
  case channel_input(c_a, c_b);
  case port_in when pinsneq(port_input_data) :> port_input_data :
    do_port_input(port_input_data);
    break;
}
```

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