How to use nullable types

version 1.1.1

scope Example. This code is provided as example code for a user to base

their code on.

description How to use nullable types

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.

Resource types (e.g. ports, timers etc) and reference types can be made *nullable*. This means that their value could be a normal value or could be the special value null. The ? type operator creates a nullable type.

For example the following function has a nullable port argument:

```
void f(port ?p)
{
  if (!isnull(p)) {
    printf("Outputting to port\n");
    p <: 0;
  }
}</pre>
```

The isnull function tests whether a variable of nullable type is null or not.

Functions taking nullable arguments can either be passed a value or the null value:

```
void g() {
  f(null);
  f(p);
}
```

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