XMOS®

Application Note: AN10026

How to return values via interface calls

This application note is a short how-to on programming/using the xTIMEcomposer tools. It shows how to return values via interface calls.

Required tools and libraries

This application note is based on the following components:

- xTIMEcomposer Tools - Version 14.0.0

Required hardware

Programming how-tos are generally not specific to any particular hardware and can usually run on all XMOS devices. See the contents of the note for full details.

1 How to return values via interface calls

Interface functions can return values. You declare them in the interface declaration as you would for a normal function:

```
interface my_interface {
  int get_value(void);
};
```

The client end of the interface can use the results of that interface function call:

```
void task1(client interface my_interface c) {
  int x;
  x = c.get_value();
  printintln(x);
}
```

When handling the function at the server end, you can declare a variable to hold the return value in the select case. This can be assigned in the body of the case and at the end of the case the value is returned back to the client.

```
void task2(server interface my_interface c) {
  int data = 33;
  select {
  case c.get_value() -> int return_val:
    // Set the return value
    return_val = data;
    break;
  }
}
```