

**Application Note: AN10023** 

## How to pass arrays over interface calls

This application note is a short how-to on programming/using the xTIMEcomposer tools. It shows how to pass arrays over 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 pass arrays over interface calls

Interface functions can take array arguments like normal functions:

```
interface my_interface {
  void msg(int a[]);
};
```

The client end can pass an array into the function:

```
void task1(client interface my_interface c)
{
  int a[5] = {0,1,2,3,4};
  c.msg(a);
}
```

On the server end the select case can access elements of the array. The compiler may translate that array access into xCONNECT inter-task communication in the hardware.

```
void task2(server interface my_interface c)
{
  select {
  case c.msg(int a[]):
    printintln(a[2]);
    printintln(a[3]);
    break;
  }
}
```



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