

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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