

**Application Note: AN10028** 

## How to use memcpy with interface array arguments

This application note is a short how-to on programming/using the xTIMEcomposer tools. It shows how to use memcpy with interface array arguments.

## 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 use memcpy with interface array arguments

Interface functions can take array arguments like normal functions:

```
interface my_interface {
  void fill_buffer(int buf[n], unsigned n);
};
```

At the server end of the interface, the memcpy in string.h can be used to copy local data to the remote array. This will be converted into an efficient inter-task copy.

```
void task2(server interface my_interface c)
{
  int data[5] = {1,2,3,4,5};
  select {
  case c.fill_buffer(int a[n], unsigned n):
    // Copy data from the local array to the remote
    memcpy(a, data, n*sizeof(int));
    break;
  }
}
```



Copyright © 2016, All Rights Reserved.

Xmos Ltd. is the owner or licensee of this design, code, or Information (collectively, the "Information") and is providing it to you "AS IS" with no warranty of any kind, express or implied and shall have no liability in relation to its use. Xmos Ltd. makes no representation that the Information, or any particular implementation thereof, is or will be free from any claims of infringement and again, shall have no liability in relation to any such claims.