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;
  }
}
```

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