

How to use interfaces to connect to multiple tasks

version	1.1.1
scope	Example. This code is provided as example code for a user to base their code on.
description	How to use interfaces to connect to multiple tasks
boards	Unless otherwise specified, this example runs on the SliceKIT Core Board, but can easily be run on any XMOS device by using a different XN file.

The following example shows three tasks running in parallel and communicating. The `task3` function performs transactions with either `task1` or `task2`.

```
void task1(interface my_interface client c) {
    c.fA(5, 10);
}

void task2(interface my_interface client c) {
    c.fA(20, 25);
}

void task3(interface my_interface server c,
           interface my_interface server d) {
    for (int i=0; i < 2; i++) {
        // wait for either fA or fB over connection c.
        select {
            case c.fA(int x, int y):
                printf("Received fA from interface end c: %d, %d\n", x, y);
                break;
            case d.fA(int x, int y):
                printf("Received fA from interface end d: %d, %d\n", x, y);
                break;
        }
    }
}

int main(void) {
    interface my_interface c;
    interface my_interface d;
    par {
        task1(c);
        task2(d);
        task3(c, d);
    }
    return 0;
}
```



You can also connect to multiple tasks over the same interfaces using interface arrays.



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