

# How to run an executable using XGDB

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version	1.1.1
scope	Example. This code is provided as example code for a user to base their code on.
description	How to run an executable using XGDB
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.

For example, compile the following *Hello world* code ensuring that debug is enabled (-g):

```
#include <print.h>

int main() {
    printstr("Hello World!\n");
    return 0;
}
```

## 1 To run using XGDB from xTIMEcomposer Studio

Create a new debug configuration via *Run->Debug Configurations->xCORE Applications*. You must then choose the target, for example, either one of the currently connected development boards or the simulator. Clicking on *Debug* will start XGDB, connect to the selected target and start executing the program.

## 2 To run using XGDB from the command line

Start XGDB passing the resulting executable as an argument:

```
xgdb a.xe
```

Next you will need to choose the target. The XGDB *connect* command with no arguments will connect a development board, if there is only a single one connected. If there is more than one connected, then the chosen target must be specified.

Alternatively, use `connect -s` to target the simulator. The `run` command will then start execution on the chosen target. For example, executing the above code on a connected development board will result in the following session:

```
> xgdb a.exe
GNU gdb (XGDB) 12.1.0 (build 7669)
Copyright (C) 2007 Free Software Foundation, Inc.

...etc...

(gdb) connect
0x00010000 in _start ()
(gdb) run
Loading image to XCore 0
Loading section .text, size 0x1ec lma 0x10000

...etc...

Start address 0x10000, load size 764
Transfer rate: 149 KB/sec, 63 bytes/write.
Hello World!

Program exited normally.
(gdb)
```



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