

# Frequently used commands

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This document summarizes a number of frequently-used commands that can be run using the command line.

## 1 XCC

To compile a program for your development board, enter the following commands:

1. `xcc -print-targets`  
XCC displays a list of supported development boards.
2. `xcc <file> -target=<board> -o <binary>`  
XCC compiles the file, generating an executable binary for your target board.

## 2 XRUN

To load a compiled program onto your development board, enter the following commands:

1. `xrun -l`  
XRUN prints an enumerated list of all JTAG adapters connected to your PC and the devices on each JTAG chain, in the form:

ID	Name	Adapter ID	Devices
--	----	-----	-----
2. `xrun --id <n> --io <binary>`  
XRUN loads your binary onto the hardware connected to the adapter with the specified ID. The `--io` option causes XRUN to remain connected to the adapter, providing the standard output stream from your hardware to the terminal.

### 3 XGDB

To compile and debug your program, enter the following commands:

1. `xcc <file> -target=<board> -o <binary> -g`

XCC compiles your file with debugging information enabled.

2. `xgdb bin.xe`

GDB loads with a prompt.

3. `list-devices`

GDB prints an enumerated list of all JTAG adapters connected to your PC and the devices on each JTAG chain, in the form:

ID	Name	Adapter ID	Devices
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4. `connect --id <id>`

GDB connects to your target hardware.

5. `load`

GDB loads your binary.

6. `break main`

GDB adds a breakpoint to the function main.

7. `continue`

GDB runs the program until it reaches main.

### 4 XSIM

To run your program on the simulator, enter the following command:

- ▶ `xsim <binary>`

To launch the simulator from within the debugger, at the GDB prompt enter the command:

- ▶ `connect -s`

You can then load your program onto the simulator in the same way as if using a development board.



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