

# GNU Debugger (GDB) Cheat Sheet

<b>gcc -g</b>	% gcc -g filename.c	Compile using -g flag to use GDB.
<b>gdb</b>	% gdb a.out % gdb a.out core	Start debugging executable file a.out. Start gdb a.out with core file.
<b>quit</b>	q	Quit gdb.
<b>help</b>	help [ <i>command</i> ]	Display help message [for <i>command</i> ].
<b>layout</b> <b>refresh</b>	layout next refresh	Display source code and debug windows. Use up/down scroll keys to view source code. Refreshes screen. Can also use ^L.
<b>run</b>	r r <i>arg1</i> [ <i>arg2</i> ...] r < <i>input.txt</i>	Run program. Run with arguments to program. Run with input.txt file.
<b>backtrace</b>	bt	Displays call stack.
<b>frame</b>	f	Displays current line you are at.
<b>where</b>	w	Where you are in code.
<b>list</b>	l l 99 l <i>function</i>	List 10 lines of code. List line 99 in current function. List start of named function.
<b>break</b>	b	Break on current line.
<b>info</b>	b 99	Break on line number 99.
<b>delete</b>	b main	Break at the start of main program.
<b>return</b>	b <i>function</i> d d 99 return <i>value</i>	Break on function name. Delete all break and watch points. Delete break or watch point 99. Return value for function at current point.
<b>print</b> <b>display</b> <b>undisplay</b> <b>watch</b>	p <i>variable</i> display display <i>variable</i> undisplay 99 watch <i>variable</i>	Print variable, array, or pointer address values. Lists variables being displayed. Displays variable value on each step. Undisplay variable value. Break when watch variable changes value.
<b>next</b>	n	Next. Does not enter functions.
<b>step</b>	s	Step. Enters function calls.
<b>continue</b>	c	Continue running code.
<b>ENTER Key</b>	ENTER Key	Press ENTER to repeat previous command.
<b>info</b> <b>!ls</b>	info args info break info locals info watch !ls	List arguments. List all break and watch points. List local variables. List variables being watched. Run any Unix command, like ls or vi <i>filename.c</i>

To use software watch points, edit .gdbinit file in your home directory and add this line: **set can-use-hw-watchpoints 0**

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