

# 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 src 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>	p <i>variable</i>	Print variable, array, or pointer address values.
<b>display</b>	display	Lists variables being displayed.
<b>undisplay</b>	display <i>variable</i>	Displays variable value on each step.
<b>watch</b>	undisplay 99 watch <i>variable</i>	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>	info args	List arguments.
<b>!ls</b>	info break info locals info watch !ls	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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