

**NAME**

**kgdb** - kernel debugger

**SYNOPSIS**

**kgdb** [-a | -f | -fullname] [-b *rate*] [-q | -quiet] [-v] [-w] [-d *crashdir*] [-c *core* | -n *dumpnr* | -r *device*]  
[*kernel* [*core*]]

**DESCRIPTION**

The **kgdb** utility is a debugger based on **gdb(1)** that allows debugging of kernel core files.

The options are as follows:

- a** Increase the annotation level. An annotation level of 1 features the historical **-fullname** option of **gdb(1)**. This is useful when running **kgdb** in Emacs. The **-f** or **-fullname** options are supported for backward compatibility as well.
- b *rate*** Set the baudrate to *rate*.
- q** Suppress printing of the banner when the debugger starts. The **-quiet** form is supported for compatibility as well.
- v** Increase verbosity.
- w** Opens kmem-based targets in read-write mode. (This is identical to what **--wcore** used to do in previous **gdb** versions for FreeBSD.)
- d *crashdir*** Use *crashdir* instead of the default, */var/crash* to locate kernel core dump files in. The name *vmcore.* plus the dump number will be appended to determine the actual dump file name.
- c *core*** Explicitly use *core* as the core dump file.
- n *dumpnr*** Use the kernel core dump file numbered *dumpnr* for debugging.
- r *device*** Use *device* to connect **kgdb** to for a remote debugging session.

The **-c**, **-n**, and **-r** options are mutually exclusive.

Optionally, the name of the kernel symbol file and the name of the core dump file can be supplied on the command-line as positional arguments. If no kernel symbol file name has been given, the symbol file of

the currently running kernel will be used. If no core dump file has been specified through either of the options or the last command-line argument, */dev/mem* will be opened to allow debugging the currently running kernel.

## FILES

*/dev/mem*

Default memory image to open if no core dump file has been specified.

*/var/crash* Default directory to locate kernel core dump files.

## SEE ALSO

*gdb(1)*

## HISTORY

The **kgdb** utility first appeared in its current form in FreeBSD 5.3.