

Integrating GDB with Bochs

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To integrate gdb with bochs, I followed the instructions given in the <https://people.engr.tamu.edu/bettati/Courses/OSProjects/integrating-bochs-environment-with-gdb.pdf> file.

The steps included:

1. Installing gdb on the system
2. Adding the -g flag to all gcc commands within the make file
3. Renaming all occurrences of "kernel.bin" to "kernel" in makefile as well as the copykernel.sh file
4. Removing the OUTPUT_FORMAT in the linker.ld file
5. Compiling the code to generate the kernel file
6. Copying kernel file contents to floppy and unmounting using the copykernel.sh script
7. Adding the GDB debugger stub in the bochsrc.brc file
8. Running the bochs using the `bochs -f bochsrc.brc` command
9. Connecting to the port (1111) on another terminal within gdb using `target remote localhost:1111` command
10. Setting break points

Following is the screenshot of the debugger being used:

