

Bus error

A C bus error, like a segmentation fault, occurs when you try to address memory outside the valid address space. One description has your hardware generating a bus error while your kernel generates a segmentation fault. Another related description says that a bus error occurs on a physical address where a segmentation fault occurs on a virtual address (like the offset, *d*, from a segment, *s*, described in objective #2).

If you cannot find the location of a memory error visually, you can try using print statements or commenting out blocks of your code. If you put print statements before and after the faulty line of code, only the first print statement will be printed before the crash occurs. When debugging with printf statements, always include the newline character as sometimes a print will go to your display buffer but a crash will prevent the display buffer from being displayed. Using the `\n` newline character will ensure the display buffer is flushed.

An alternative debugging method a few students are using is gdb. This is the GNU project debugger and you can find it by typing `gdb` at the Olympus prompt. Google `gdb` for reference material.

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