

Programs can run fine on one computer but then break on another.

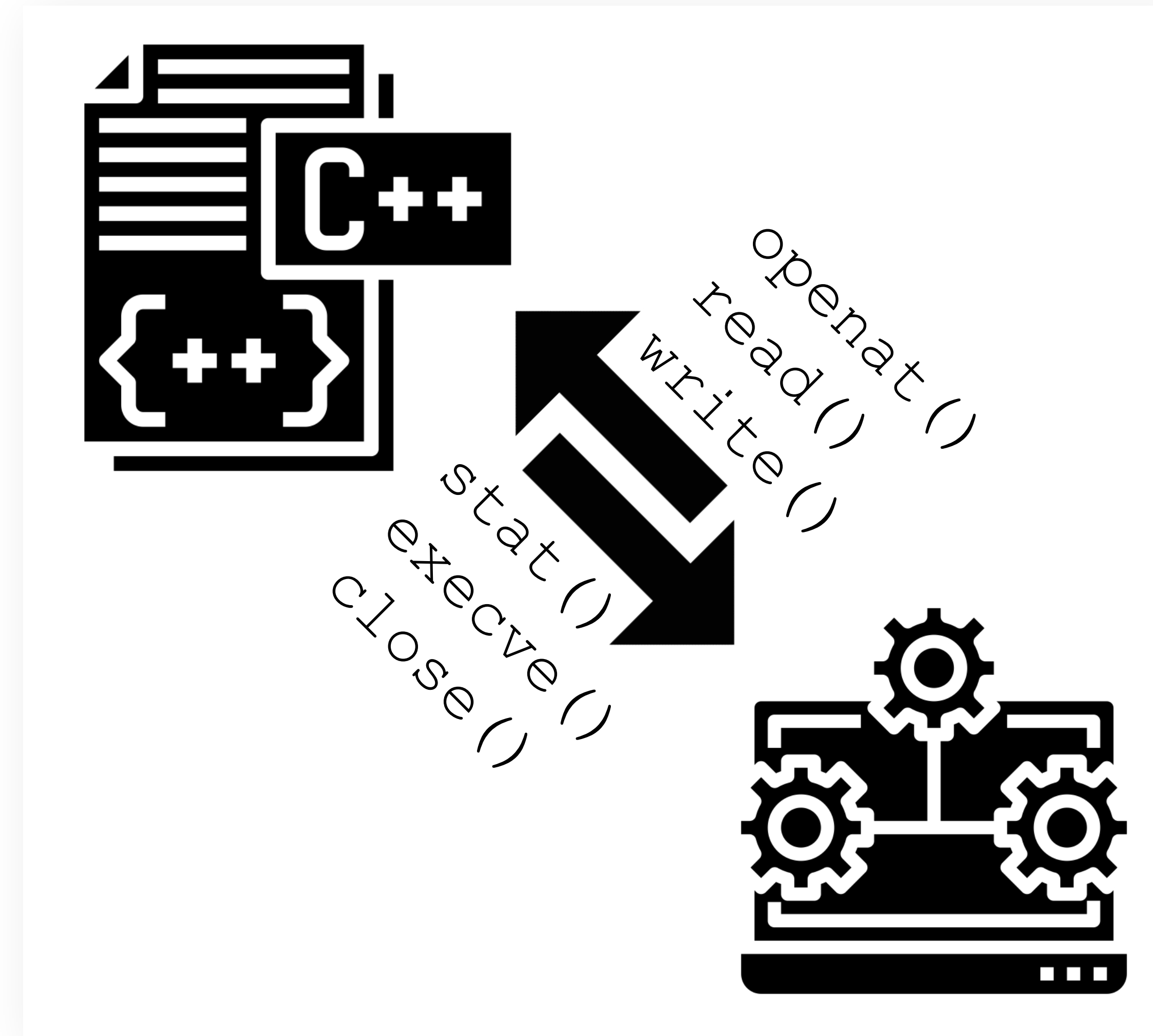


BitFridge ensures that programs run correctly on every computer.



BitFridge: Defending Applications from Bitrot

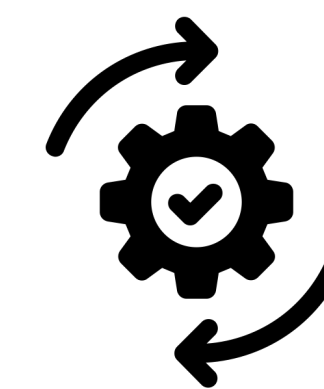
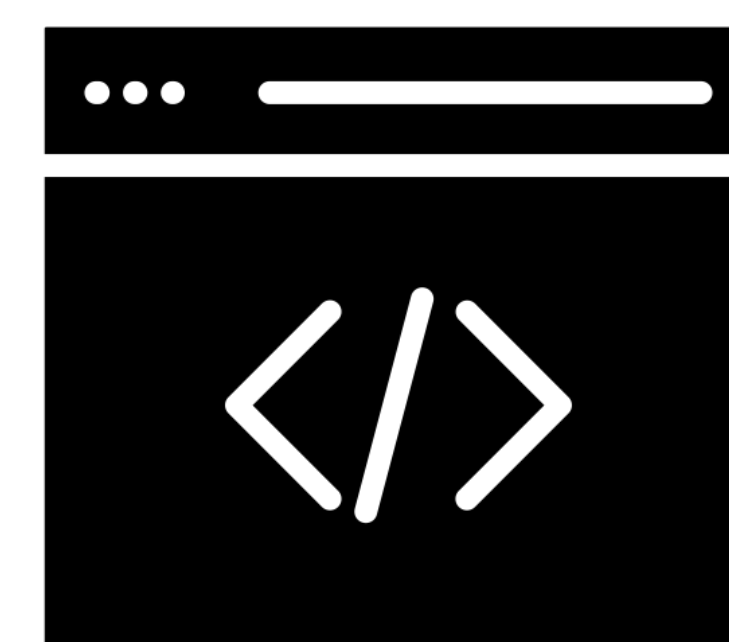
Programs use **system calls** to communicate with the operating system.



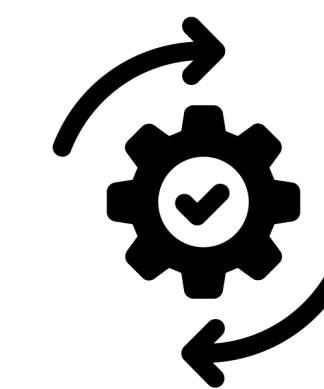
These can behave unexpectedly on different operating systems.



BitFridge circumvents this by tracing a program's effects onto a separate **transcript...**



```
r1 = SpecialRef(c, CWD)
r2 = PathRef(c, r1, "input", ---)
ExpectResult(c, r2, SUCCESS)
MatchMetadata(c, r2, [uid=100, gid=100,
                      type=file, perms=rw-r--r--])
```



...and runs that **trusted, correct** representation on the user's machine.

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