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Popcount Performance

Python:

Built In: 2000 ns

64\_c: 2000 ns

1\_data: 17000 ns

It makes sense that python would be drastically slower than other languages. It is a high-level programming language and is not meant for fast code. It’s suggested that you do any performance code in a low-level language.

JavaScript:

Built In: 999.99999999999818101 ns

1\_data: 1000 ns

4\_control: 1000.0000000000015916 ns

I would’ve thought that the control should have been a much higher result than the built-in. Not sure on the conversion of these numbers given the fact that it could be reporting in micro- or milli-seconds.

Swift:

1\_data: 13087 ns

4\_control: 824 ns

64\_a: 3288 ns

That swift is slower, but not the slowest, is something I’d expect to see. Swift makes calls to other programming languages such as c or obj-c in order to run its code. As a result of having to make function calls to lower-level programming languages, it slows down the code. It’s also dynamic and needs to inherently

Java:

1\_control: 339 ns

4\_data: 545 ns

Built-in: 279 ns

This was a surprise. As a JIT language, I would have thought that this wouldn’t be so fast, but turned out to be the fastest. If I had only run this once like I did in other languages, then I may have seen different results, but I knew that running it through for a substantial number of times would optimize the code I’d written.