

Is Guile fast?

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The effective speed of GNU Guile depends on the task. It can be more than factor 10 faster than Python (i.e. for math with huge numbers) or slower (string manipulation from files which is Python is directly handed off to C-code).

In general, Guile is among the faster Schemes, but performance of Schemes varies strongly by task. A performance-comparison of different Schemes over a wide variety of tasks is available in the [r7rs-benchmarks](#) by ecraven.

Using geometric mean to obtain one number shows that Guile is roughly factor 2.3 slower than Racket, but as said, this varies by task.

I once got out of performance problems by just translating a Python program into a Guile one using exact numbers. The performance of Guile for huge numbers is awesome!

To get an idea how this compares to other programming languages, you can have a look at the results from the [benchmarksgame](#) which includes Racket: In the central 50% of tests (the inter-quartile-range, IQR) Racket is on average factor 5-10 slower than C (though with code golf and unsafe ops it got down to 2x C-without-assembler in the [spectral norm](#)), so Guile could be factor 10-20 slower than C, while Python is factor 20-200 slower than C.

If you need maximum performance, you'll want to externalize performance-critical parts to C and access them via [FFI](#) or use existing bindings like [guile-ffi-cblas](#).