Do you have a precompied cisTEM for AMD processor based workstation?

Thu, 10/04/2018 - 23:36

#1

suilab

Do you have a precompied cisTEM for AMD processor based workstation?

Hi, Tim,

Do you have a precompied cisTEM for AMD based workstation? If not, a detailed instruction of installaiton from the surce code wil be appreciated. Thank you!

Haixin

timgrant

Hi Haixin,

Does the supplied binary not work on the AMD? If it does, it may still run quite well, but you would need to test.

If you want to compile from source, you will need to extract the package, and run ./configure. You will need FFTW and wxWidgets installed. The wxWidgets has to be of a specific version, so you may need to compile that yourself also. This might be considerably slower though.

Tim

Mon, 10/08/2018 - 20:14 <u>(Reply to #2)</u>

suilab

Hi Tim,

We are testing it now. We had cisTEM installed on a AMD based Ubuntu 18.04 workstation and it seems run well. We will report to here if there be any problem. Thank you!

Haixin

rnavaza

the pre-compiled binaries works on AMD

Hi Haixin,

I've been running the pre-compiled binaries of cisTEM on AMD Opteron 6282SE and AMD Opteron 6172 processors without issues. As it's old stuff then I guess it works also on modern AMD platforms

Rafael.

Daniel Asarnow

The Intel compiler has

The Intel compiler has excellent CPU dispatching such that highly efficient code will be selected based on the architecture of the CPU in use. Unfortunately, the Intel compiler also has a second set of dispatching functions keyed to "Genuine Intel" and "Authentic AMD" flags, which emit non-vectorized (or under-vectorized) code for AMD chips. Some Intel library functions use the fair dispatcher, some use the discriminatory one. My guess is there will be a slight performance degradation due to some functions not using SSE4/AVX/AVX2 on AMD chips where they otherwise could. For pre-AVX chips there may be no difference. (IIRC even the discriminatory dispatcher would still use SSE2 on AMD). Again, all the Intel library functions that happen to use the fair dispatcher will be unaffected.

This behavior led to a scandal a few years back, which resulted in Intel changing their claim of "best compiler" to "best compiler on Intel chips." Linux kernel dev Agner Fog discovered it, if you're interested you can read the whole saga here.

rnavaza

Intel compilers unfair dispatcher

I know about it, and it depends on how the binary has been compiled :
Intel compiler options for specific optimizations

What I want to say is that if cisTEM has been compiled with only one code set option (like -xSSSE3) then the resulting binary will be fair for all processors.

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