speedup by binning

Tue, 01/09/2018 - 14:56 #1

sstagg

speedup by binning

Hi all,

I have a dataset with > 3,000,000 particles and a box size of 256. I would like to do some of the early processing like 2D and 3D classification on a binned stack, then do the final refinement on an unbinned stack. I don't see an easy way to do that in cisTEM. Do you have any suggestions?

Thanks,

Scott

niko

You can export your current

You can export your current Refinement Package, then bin the stack using the resample tool (in the *cis*TEM binary folder), then import the binned stack and exported parameter file to create a new Refinement Package.

Tue, 01/09/2018 - 16:04 (Reply to #2)

sstagg

Sorry, I think I'm not

Sorry, I think I'm not understanding. Let's say I export a Refinement Package, then bin, and reimport. Then I do 2D and 3D classification on the binned stack and eliminate a fraction of the particles. In the next step, I would want to use the specific particles from the 2D and 3D classification but use them in an unbinned refinement. I don't understand how to get the correspondence between particles between the unbinned and binned sets.

timgrant

Hi Scott,

Hi Scott,

Sorry - I think there is no easy way to do this without doing a bit of hacking / direct manipulation of the database.

cisTEM does binning on the fly, so while pre-binning will likely give you a bit of a speedup, it may not give you as much as you expect.

Thanks,

Tim

sstagg

I see. I was wondering how it

I see. I was wondering how it was as speedy as it is on CPUs. That explains it. I'll just be satisfied with its current heuristic approach. Thanks!