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Micrograph name after cisTEM refinement

Mon, 10/29/2018 - 18:12

#1

dariorj

Hi,

I created a stack with my best particles from Relion and refined (auto and manual) in cisTEM. Now, I want to know what micrographs have contributed with particles to my final refined map in cisTEM and I am struggling to extract this information.

If I export from Refine Pkgs, it will generate a MRCS and a STAR file, but the STAR file will not contain micrographs name.

I also tried to follow the treads below, but I was not able to find a table containing this information neither. It looks like cisTEM does not save the micrograph's information from the input STAR file. Am I right? If there is a way, it would be great if someone could post it.

https://cistem.org/documentation#tab-1-16

https://cistem.org/seeking-particle-occupancy-info-2d-classes

Thanks,

Dario

Tue, 10/30/2018 - 18:36

timgrant

Hi Dario,

Hi Dario,

The original micrograph location is not stored when importing from Relion, so this information does not exist within cisTEM anymore. If you did not change which particles are contained in the stack, the original star file can be used. However, It sounds like you have done some sub selection of the particle stack, and so you have a refinement package with a subset, and you want to track that back?

In this case, it is possible that you can recover the original particle number. This *should* be stored in the original particle location, however, I have not tested this much, so you would need to carefully check.

First, you must find the refinement package id for the refinement package you are interested in :-

select * from refinement_package_assets;

Find your refinement package, and note the ID (it will be the first column).

After you have this ID, you can find the original particle location for all particles in the refinement package with the following command (replace \$id with the correct number)

select ORIGINAL_PARTICLE_POSITION_ASSET_ID from REFINEMENT_PACKAGE_CONTAINED_PARTICLES_\$1;

This *should* match up with the original location in the star file - but please double check.

I hope this helps!

Tim

Tue, 11/13/2018 - 23:58 (Reply to #2)

dariorj

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Hi Tim,

your directions work beautifully.

Thanks a lot!

Dario

Source URL: https://cistem.org/micrograph-name-after-cistem-refinement?page=0