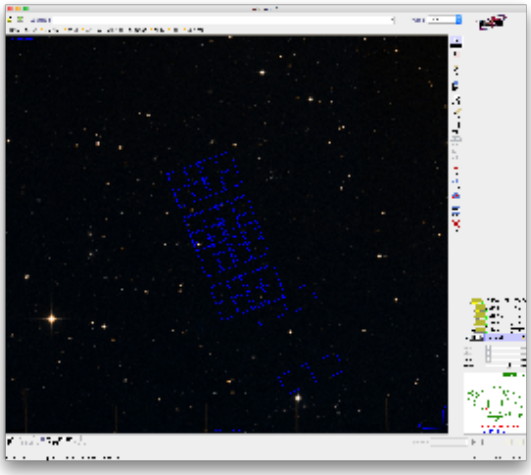
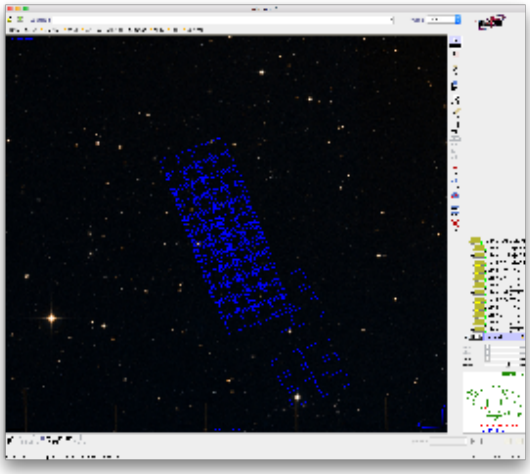
Parallels Answer Key

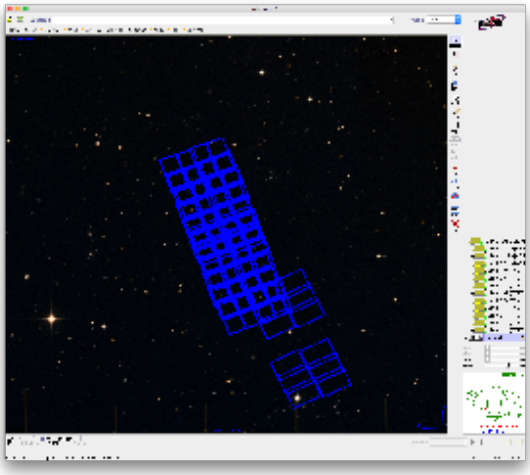
Answers to, and relevant screen shots for, Exercise #1 (NIRCam Imaging + MIRI Imaging):



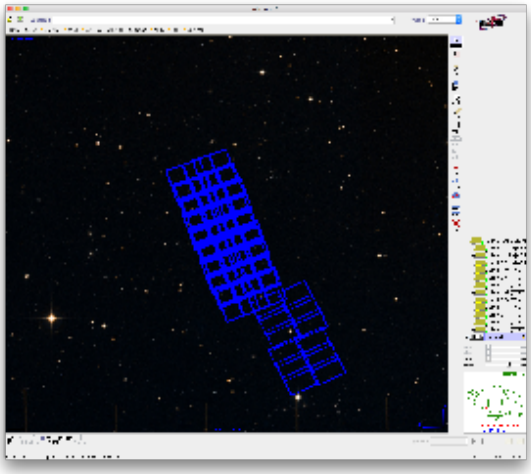
- Aladin view after step 3:



- Aladin view after step 5a:
- Answer to step 5b: the dither pattern should be 9-POINTS-WITH-MIRI-F1500W (since it has to work with both F770W and F1500W). But note that the participants might think at this point that they should choose 9-POINTS-WITH-MIRI-F770W. If so, go ahead and let them choose that one for now, this issue will come up again at step 11.



- Aladin view after step 5d:
- Answer to step 6: Approximate Row Overlap = 20%, Column Overlap = 40%.



- Aladin view after step 6:
- Answer to step 7: Yes they can definitely be lengthened.
- Answer to step 8a: 325 groups.
- Best answer to question in step 11: Yes, we should use the same dither strategy for both Observations, especially if one wants the two Observations to share the exact same data taking procedure (and hence sky coverage).

Answers to, and relevant screen shots for, Exercise #2 (NIRISS WFSS + NIRCam Imaging):

- Answer to step 3b: Dither pattern to be selected is 9-POINT-MEDIUM-NIRCam (because we had 8-point MEDIUM before adding the coordinated parallels).
- Answer to step 7a: DEEP8 will likely be optimal.
- Answer to step 7b: Number of groups = 3, 5, and 3 for NIRCam exposures 1, 2, and 3 respectively.
- Answers to step 8:
    - total of 18 NIRCam exposures.
    - Minimizing the mechanism move-related overheads: Look at the filter's locations in the NIRCam Pupil and Filter Wheels (Article "NIRCam Overview" in JDox), and then make 1-position switches from one exposure to the next.
- Answer to step 11: When selecting "BOTH" grisms instead of one at a time, one can only select 3 sets of NIRCam filters for the parallels instead of 6.