

# NIRSpec Multi-Object Spectroscopy Template APT Guide

The MOS APT Template should not normally be filled out by the user. Instead, the MSA Planning Tool (MPT) should be used.

## Caution: MOS observations are created differently!

NIRSpec's [multi-object spectroscopy \(MOS\) observing mode](#) provides the means to simultaneously obtain the spectra of multiple objects within its  $3.4 \times 3.6$  arcmin overall field of view. Because of the complexity of this mode, the [MSA Planning Tool \(MPT\)](#) within APT was developed to help users create MOS observations.

 Users should not normally fill out the [MOS APT template](#). MPT will automatically fill out the template when an observation is created. To start creating your MOS observation with the MSA Planning Tool, follow the instructions in the [MSA Planning Tool, MPT](#) page.

Exceptions to this rule exist for some types of science, in particular, observations of moving targets and/or extended targets. In these cases, the steps in the [MOS Custom Configuration Process](#) article should be followed. Whether or not observations are defined automatically with the MPT, manually designed in the Manual Planner, or directly specified in the Observation template in special cases, the user should remember to complete the observation template to specify the addition of any [Confirmation Images](#), and/or observation [Special Requirements](#), especially those required for MOS observations described in the [MOS Proposal Checklist](#).

 The [mosaic](#) capability is provided at the Observation level of an APT MOS program. Mosaicking of observations generated automatically by MPT does not make sense since dithers are already optimized to obtain the most MSA targets in a Catalog. However, mosaicking of observations designed in the [Manual Planner](#) can be useful. This mechanism can be used to move a long slit to different locations across a large extended object, for example, when using the Manual Planner.

## References

[Karakla, D. et al. 2014, Proc. SPIE 9149](#)

The NIRSpec MSA Planning Tool for multi-object spectroscopy with JWST

