Overview

* Flat Creation
  + Identify flat groups by exposure, filters, and mask position
  + Move PG Flats to end
  + Find closest master dark in exposure time
  + If group of PG
    - Identify closest mask flat
      * Find closest in exposure time
      * If none, query database
      * If none in database, ask user
    - Create master PG flat
  + Else
    - Create master flat
* Sky Creation
  + Group sky files by object (group within 8 arcminute radius)
  + Determine mean location of files in object group (mean coordinate)
  + Determine standard deviation in distance from the mean distance to mean coordinate
  + Group consecutive sky images (assuming science images were taken in between a series of sky images)
    - Images identified as being a certain multiple of standard deviation in distance from the mean location
  + Median combine the groups of sky files into a master sky per each consecutive group
* Matching?

Yes

Yes

No

No

Yes

No

Yes

Yes

No

Yes

No

No

Yes

No

Yes

No

No

Yes

No

Yes