omflatgen

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Abstract

Creates a full-field (1024x1024) OM flatfield image.

1 Instruments/Modes

OM	IMAGING

2 Use

pipeline processing	yes
interactive analysis	no

3 Description

Produces a full-field (1024x1024) flatfield image for use in flatfielding individual OM images.

4 Parameters

This section documents the parameters recognized by this task (if any).

Parameter	Mand	Type	Default	Constraints
outset	yes	string		

Output flat-field image

5 Errors

This section documents warnings and errors generated by this task (if any). Note that warnings and errors can also be generated in the SAS infrastructure libraries, in which case they would not be documented here. Refer to the index of all errors and warnings available in the HTML version of the SAS documentation.

allocError *(fatal)*
Could not allocate memory for internal flat-field array

6 Output Files

1. Output flatfield image.

7 Algorithm

```
   subroutine omflatgen

        Retrieve flatfield image array from the CCF

write output array and attributes to output file

   end subroutine omflatgen
```

8 Comments

The OM flatfield is currently maintained as a unit image in the OM_PIXTOPIXSENS CCF file. It was originally intended that OM flatfield exposures would be held in an archive and that users would be able to extract and combine sets of flats of their choice from this archive. This would permit users to generate flatfields temporally close to their observations if desired and also allow one to monitor the evolution of the flatfield.

In practice, the complexity of deriving a meaningful flatfield for the photon-counting OM detector has led to the installation of a unit flatfield image. In fact, evidence indicates that there are no large scale variations within the statistical uncertainties of the measurements and that the image is flat on large scales to better than ∼5%. Evidence also suggests that pixel to pixel variations are probably constrained to a similar level. Thus, currently, the unit flatfield is deemed adequate for OM applications.

The *omflatgen* task simply retrieves the flatfield image from the CCF file and creates a flatfield file for use by *omflatfield*.

9 Future developments

References