make_mask_merge

November 4, 2014

Abstract

make_mask_merge creates cheese images for individual exposures using the merged source list from *merge_source_list*. It makes the masks in the three bands of the merged source list: soft, hard, and combined.

1 Instruments/Modes

Instrument	Mode
EPIC	Imaging

2 Use

pipeline processing	no
interactive analysis	yes

3 Description

make_mask_merge creates cheese images for individual exposures using the merged source list from *merge_source_list*. It makes the masks in the three bands of the merged source list: soft, hard, and combined.

Warning and requirements: *make_mask_merge* is part of the *esas package* integrated into SAS, but it is limited to work within the *esas* data reduction scheme. This is specially true wrt the structure and names of the input files. In particular, *merge_source_list* assumes that other tasks from the package, *mos-spectra* / *pn-spectra*, *cheese* or *cheese-bands*, and *merge_source_list* have been successfully run for the lists to be used. If *cheese* has been run just the total band mask will be created.

4 Parameters

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

Parameter	Mand	Type	Default	Constraints

srclist	yes	string	merged-source-list.fits	

Merged source list from `merge_source_list`

prefix	yes	string	1S001	

Exposure identfier.

inmask	yes	string	mos1S001-mask-im-750-1250.fits	

Input mask file name.

flimtot	yes	real		

Combined band source flux threshold (10^{-14} cgs).

flimsoft	yes	real		

Soft band source flux threshold (10^{-14} cgs).

flimhard	yes	real		

Hard band source flux threshold (10^{-14} cgs).

scale	yes	real		

Scale factor for W90 radius.

seper	yes	real		

Minimum allowed source separation in arc second.

maxlikelim	yes	real		

Minimum accepted value for the maximum likelihood detetion parameter.

clobber	no	boolean	yes	T/F

Clobber existing files?

5 Input Files

merged-source-list.fits

6 Output Files

Cheese masks in three bands for the specified exposure.
`mos` or `pn`*prefix*`-msl-cheese.fits` – Total band cheese mask.
`mos` or `pn`*prefix*`-msl-cheese-s.fits` – Soft band cheese mask.
`mos` or `pn`*prefix*`-msl-cheese-h.fits` – Hard band cheese mask.

7 Algorithm

8 Comments

References