



make_mask_merge

June 2, 2019

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
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srclist	yes	string	merged-source-list.fits	
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Merged source list from `merge_source_list`

prefix	yes	string	1S001	
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Exposure identifier.

inmask	yes	string	mos1S001-mask-im-750-1250.fits	
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Input mask file name.

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

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

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

scale	yes	real		
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Scale factor for W90 radius.

seper	yes	real		
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Minimum allowed source separation in arc second.

maxlikelim	yes	real		
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Minimum accepted value for the maximum likelihood detection parameter.

clobber	no	boolean	yes	T/F
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Clobber existing files?

5 Input Files

merged-source-list.fits

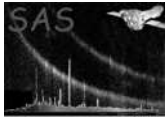
6 Output Files

Cheese masks in three bands for the specified exposure.

`mos` or `pnprefix-ms1-cheese.fits` – Total band cheese mask.

`mos` or `pnprefix-ms1-cheese-s.fits` – Soft band cheese mask.

`mos` or `pnprefix-ms1-cheese-h.fits` – Hard band cheese mask.



7 Algorithm

8 Comments

References