



# mos-filter

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## Abstract

*mos-filter* is the initial task to be run on the data within the *esas* package for MOS. It calls *espfilt* to identify good time intervals. Filtering is also done using the standard parameters for PATTERN, etc. *mos-filter* will process all of the MOS imaging exposures for both detectors for the observation pointed to by \$SAS\_DIR.

## 1 Instruments/Modes

Instrument	Mode
EPIC	Imaging

## 2 Use

pipeline processing	no
interactive analysis	yes

## 3 Description

*mos-filter* is the initial task to be run on the data within the *esas* package for MOS. It calls *espfilt* to identify good time intervals. Filtering is also done using the standard parameters for PATTERN, etc. *mos-filter* will process all of the MOS imaging exposures for both detectors for the observation pointed to by \$SAS\_DIR.

**Warning and requirements:** *mos-filter* is part of the *esas* package integrated into SAS, but it is limited to work within the *esas* data reduction scheme.

## 4 Parameters

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

Parameter	Mand	Type	Default	Constraints
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## 5 Input Files

The task will filter data reduced either with *emproc* or *emchain*, present in the working directory.

## 6 Output Files

- *mosprefix-cc-ori.fits* – The cal-closed photon event files produced by *emchain*
- *mosprefix-clean.fits* – The filtered photon event files
- *mosprefix-corn.fits* – Event list of data from the corners of the detectors
- *mosprefix-corn-image.fits* – Image of the filtered data from the unexposed corners in detector coordinates
- *mosprefix-gti.fits* – Fits file list of good time intervals identified by the task *espfilt*
- *mosprefix-gti.txt* – Ascii list of good time intervals identified by the task *espfilt*
- *mosprefix-hist.qdp* – QDP plot file of the light curves showing the filtered intervals and a histogram of the *mosprefix-rate.fits* showing the filtering selection.
- *mosprefix-obj-image-det.fits* – Image of the filtered data in detector coordinates
- *mosprefix-obj-image-det-soft.fits* – Image of the filtered data in detector coordinates in the 0.2 – 0.9 keV band
- *mosprefix-obj-image-det-unfilt.fits* – Image of the unfiltered data in detector coordinates
- *mosprefix-obj-image-sky.fits* – Image of the filtered data in sky coordinates
- *mosprefix-ori.fits* – The photon event files produced by *emproc* / *emchain*
- *mosprefix-ratec.fits* – Light curve of the data from the corners of the detectors in the 2.5 – 12.0 keV band
- *mosprefix-rate.fits* – Light curve of the data within the open area of the detectors in the 2.5 – 12.0 keV band

## 7 Algorithm

## 8 Comments

## References