



AHELP for CIAO 3.4

## sstats

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## Synopsis

sstats.sl– Calculate statistics of images

## Description

The sstats.sl script is used to calculate statistics in ACIS or HRC images. Although in many cases it is easier (and faster) to use the dmstat tool, this script allows you to ignore regions of the image by using a mask file.

The script is run from within ChIPS ("ahelp chips"), as shown in the example. To load the script:

```
chips> () = evalfile("sstats.sl")
```

This step is only necessary once per ChIPS session.

This script is used in the [Calculating Statistics of Images](#) thread.

## Example 1

```
chips> sstats( "img_stat.fits" )
```

Calculate statistics over the whole input image, "img\_stat.fits". The output is:

```
Statistics of img_stat.fits.
Mean = 1.3997e-02  RMS = 1.1977e-01  Total      = 2.6730e+03
Min  = 0.0000e+00  Max  = 2.0000e+00  Num pixels = 190969
```

## Example 2

```
chips> sstats( "img_stat.fits", "emap_stat.fits" )
```

Repeat the above example, restricting the calculation to just those pixels within an annulus. In this case we use a filtered exposure map (emap\_stat.fits) the same size as img\_stat.fits in which those pixels which should be considered for the calculation have values > 0. The output is:

```
Statistics of 1838_img_s3.fits[sky=region(stat.reg)] using (expmap_1.7kev_7.fits[sky=region(stat.reg)] > 0
Mean = 2.7784e-02 RMS = 1.6761e-01 Total = 2.6730e+03
Min = 0.0000e+00 Max = 2.0000e+00 Num pixels = 96205
```

## NOTES

This script is not an official part of the CIAO release but is made available as "contributed" software via the [CIAO scripts page](#). Please see the [installation instructions page](#) for help on installing the package.

## Bugs

See the [bugs page for this script](#) on the CIAO website for an up-to-date listing of known bugs.

## See Also

*tools*

[dmcopy](#), [dmextract](#), [dmgroupreg](#), [dmlist](#), [dmstat](#)

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URL:  
<http://cxc.harvard.edu/ciao3.4/sstats.html>  
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