



Bugs: dmcopy

A list of bugs fixed in CIAO 3.4 is included at the end of this document.

Caveats

1. *Creating a filter for data that is outside the range of TLMIN:TLMAX*

If data in a table is outside the valid range of TLMIN:TLMAX, it is impossible to select it with a filter except by doing

```
[exclude foo=:]
```

Bugs

1. *Rebinning an image with different values for the two axes causes the coordinate information to be lost*

For example:

```
unix% dmcopy acis.img "[bin x>:::5,y>:::6]" acis5x6.img
```

Using the same value for both axes works correctly:

```
unix% dmcopy acis.img "[bin (x,y)>:::5]" acis5.img
```

2. *The BLANK header keyword that an older version of some FTOOLS (e.g. chimgtyp) write to the FITS file header causes problems for dmcopy.*

Workarounds:

1. Use a CIAO tool in place of the FTOOLS that created the BLANK keyword, e.g. instead of chimgtyp, try

```
unix% dmcopy input.fits "[opt type=i4,null=-9999]" output.fits
```

changing the `opt type` as appropriate.

2. Delete the BLANK keyword before passing the file to dmcopy or any other CIAO tool.

3. *The tool always copies the data in the primary image, even when "[opt all]" is not used.*

For example:

```
unix% dmcopy acis.fits "[spectrum]" spectrum.fits
unix% dmlist spectrum.fits blocks
```

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```
-----  
Dataset: spectrum.fits  
-----  
Block Name                                Type                Dimensions  
-----  
Block    1: WMAP                           Image               Int2(1024x1024)  
Block    2: SPECTRUM                       Table               5 cols x 1024    rows  
...
```

Here we expected to only get the SPECTRUM block, not the as WMAP well.

Workaround:

There is an odd sort of workaround:

```
unix% dmtcalc acis.fits spectrum2.fits expr="(l==1)"  
unix% dmlist spectrum2.fits blocks  
-----  
Dataset: spectrum2.fits  
-----  
Block Name                                Type                Dimensions  
-----  
Block    1: PRIMARY                       Null  
Block    2: SPECTRUM                       Table               5 cols x 1024    rows  
...
```

4. *Specifying a fixed number of output image bins (06 Mar 2007)*

The number of bins that dmcoppy creates is different than the input specification:

```
unix% dmcoppy acis_evt2.fits"[bin x=3482:4708:#122,y=3406:4630:#122]" test.fits  
unix% dmlist test.fits blocks  
....  
Block    1: EVENTS_IMAGE                   Image               Int2(123x122)  
...
```

5. *The tool only copies the first element of a vector array column (06 Mar 2007)*

For example, in this file, there is a WCS on the POS column which is a vector array column that is 13 elements long. Copying the data yields:

```
unix% dmcoppy acis_fov.fits"[cols ra,dec]" copy.fits  
unix% dmlist copy.fits data  
-----  
Data for Table Block FOV  
-----  
ROW      EQPOS(RA,DEC)  
1 (      246.8650071199,      -24.6144174326)  
2 (      246.9897042111,      -24.7220983076)  
3 (      246.6804146459,      -24.4408800569)  
4 (      246.8046771385,      -24.5486314727)  
5 (      246.6736578338,      -24.4347154624)
```

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There should be five rows with 13 cells per row.

6. **#DMCOPY (CIAO 3.4): Can't convert region filter using unequal scaling factors. Pixels outside region will not be set to null. (10 Oct 2007)**

This error is printed when the pixels in the input image are not square, e.g. if an exposure map is created with the binning `xygrid="3175.0:4555.0:#690,3609.0:4983.0:#690"` (1380x1374).

Workaround:

Rebin to make an image with square pixels.

Bugs fixed in CIAO 3.4

The following is a list of bugs that were fixed in the CIAO 3.4 software release.

1. ***If an invalid kernel name is given, the tool defaults to `kernel=fits`.***

No error message is printed.

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URL:
<http://cxc.harvard.edu/ciao3.4/bugs/dmcopy.html>
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Bugs: dmcopv – CIAO 3.4