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## Frequently Asked Questions

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Answers to common CIAO questions, including explanation of often–seen warnings and error messages.

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### General

#### Data Products

1. [When was my observation performed?](#)  
[When was the file created?](#)  
[What version of data processing was used?](#)
2. [What does the CREATOR header keyword mean?](#)
3. [What was the aimpoint of the observation?](#)
4. [What ACIS gain file was used in the automatic processing?](#)
5. [What is the focal plane temperature for my observation?](#)
6. [Why are there sometimes multiple as01.fits files for my observation?](#)  
[How do I treat these in my analysis?](#)
7. [Why do the HRC–S threads filter out the final PHA channel \(e.g. "pha=0:254"\)?](#)

#### Parameter Files

1. [Why does the tool does not execute when I get the following error\(s\)?](#)

```
pget: parameter not found...
```

```
parammatch : can't find parameter PARAMNAME in reference list  
parameter error?
```

2. [Why should I delete my parameter files after upgrading CIAO?](#)
3. [How do I run multiple instances of a CIAO tool without clobbering the parameter file?](#)
4. [The tool is failing because " \) sval" has somehow shown up in the parameter value.](#)

#### Data Model

1. [How do I change the MEM parameter when I get this error?](#)

```
# DMCOPY (CIAO 3.4): WARNING: Creating large image: 134 MB. Current max set at 50 MB.  
Increase maximum using [opt mem=n] or increase blocking to reduce size.
```

2. [How can I define a region around a single chip?](#)
3. [Why should I filter on sky coordinates rather than the CCD\\_ID column?](#)

## ARDLIB

1. Why am I getting an ARDLIB error about a bad pixel file from a different ObsID?

```
***ARDLIB error: Unable to find data file acisf01842_000N001_bpix1.fits[BADPIX7]
```

2. What does this warning mean?

```
***ARDLIB warning: Filename some_file.fits does not specify an extension.
Assuming the first "interesting" extension.
```

3. How can I tell CIAO to use a different HRMA effective area file?

## Computer Environment

1. What is a shell?

What shell am I using?

2. Why is the background of my smongo x11 window is changed to black if CIAO is running?

## Miscellaneous

1. Which CALDB version is installed on my system?
  2. What is the limiting file size for CIAO?
  3. What is the maximum size region file that CIAO can process?
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## User Interface

### ChIPS

1. How can I get better precision in ChIPS output?

```
chips> 227.49334262014-0.0001363
227.493
```

### ds9

1. Can I use a newer version of ds9 than the one packaged with CIAO?
2. How do I build polygon regions in ds9?
3. How do I rotate a region in ds9?
4. How do I display a source list on my data?

### Filtwin

1. Why am I getting the following error when I try to launch *filtwin*?

```
FilterWindow has already been instantiated for this session.
```

## Prism

1. Why am I getting the following repeated errors when launching *prism*?

```
Warning: Cannot allocate colormap entry for "snow"
Warning: Cannot allocate colormap entry for "cyan4"
Warning: Type conversion failed
```

## Tools

### acis\_process\_events

1. Why hasn't the *CALDBVER* keyword been updated after I run this tool?
2. Why is my level 2 event file larger than the one from the pipeline?
3. What does this warning mean?

```
# acis_process_events (CIAO 3.4): The following error occurred 26941 times:
dsAFEBADPCNTERR -- WARNING: Event island contains 1 or more bad pixels.
```

4. What does this warning mean?

```
# acis_process_events (CIAO 3.4): WARNING: No files found matching
CALDB search:
    tel=CHANDRA
    inst=ACIS
    det=-
    filt=-
    product=CTI
    start_date=1999-08-20T00:07:44
    start_time=00:07:44
    stop_date=1999-08-20T02:26:38
    stop_time=02:26:38
    query=-
# acis_process_events (CIAO 3.4): WARNING: PROBLEM READING CTIFILE, CTI
ADJUSTMENT WILL NOT BE APPLIED.
```

5. What does this warning mean?

```
# acis_process_events (CIAO 3.4): The following error occurred 31 times:
WARNING: pulse height is less than split threshold when performing serial CTI adjustment.
```

### dmcopy

1. How can I specify the datatype of the output image?

### dmextract

1. How do I extract many spectra with one command?
2. Why do I get a parse error with this region file?

```
# Region file format: CIAO version 1.0
-rotbox(4055.375,4165.5674,4.6747966,4.4715447,63.400002)
annulus(4059.5601,4163.4399,2.0325203,7.113821)
```

3. Why does *dmextract* convert arcseconds to arcminutes when I use *pset*?

## dmstat

1. How can I calculate the centroid of counts in a region?

## dmtcalc

1. Why is the column moved to the end of the table when I try to update it in place?

## hrc\_process\_events

1. What does this warning mean?

```
# hrc_process_events (CIAO 3.4): The following error occurred 2482 times:
dsHPPEVENTSEQERR -- WARNING: Out of sequence events discovered in hrc_evt1.fits.
```

2. What does this warning mean?

```
# hrc_process_events (CIAO 3.4): The following error occurred 224 times:
WARNING: can't find a proper degap value for this raw coord. in hrc_evt1.fits.
```

## mkacisrmf

1. Since none of the files that are passed to mkacisrmf are aware of the date of my observation, how is the time-dependent gain included in the RMF?

## mkexpmap

1. What does this warning mean?

```
*** Warning: CYCLE not found or invalid in /tmp/imap_3.fits --- assuming 'P'
```

## mkgarf

1. What does this warning mean?

```
*** WARNING: The ARF was computed to be zero at all the specified energies.
This is probably due to an incorrect source position
```

## mkwarf

1. What does this warning mean?

```
Couldn't determine chip position for pixel: (1013.000000,0.000000)
with value=1.000000. Skipping pixel
```

## tg\_create\_mask

1. What if the extraction regions extend beyond the detector edge?

## tg\_resolve\_events

1. What does this warning mean?

```
# tg_resolve_events (CIAO 3.4): The following error occurred 38950 times:
WARNING: Event chip position is outside of valid range.
```

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```
Grating coordinates not computed for this event.
```

### 2. What does this warning mean?

```
# tg_resolve_events (CIAO 3.4): The following error occurred 10000 times:  
dsTREUNKNOWNINCOLERR -- WARNING: Not loading data from  
unrecognized level 1.5 input column.
```

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## Scripts

### S–Lang scripts

#### 1. Why can't CIAO find my S–Lang scripts?

```
sherpa> () = evalfile("lc_clean.sl")  
Error: cannot find or unable to open file as requested : lc_clean.sl
```

#### 2. My script worked in CIAO 2.3. Why won't it work in CIAO 3?

## fullgarf

#### 1. Why do I get the following error?

```
*** ERROR: aspect histogram acisf00459_ah4.fits[ASPHIST] contains no rows
```

#### 2. Why do I get the following warnings?

```
WARNING: OSIP file contains invalid data for the region  
512<=CHIPX<=768 608<=CHIPY<=640 at 0.1 keV.  
WARNING: OSIP file contains invalid data for the region  
512<=CHIPX<=768 608<=CHIPY<=640 at 0.277 keV.
```

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