

URL: http://cxc.harvard.edu/ciao3.4/faq/dmcopy\_datatype.html Last modified: 26 October 2007

## How can I specify the datatype of the output image?

Since there is no way to figure out what the data type should be in advance, the default datatype for images is Int2 (2 byte integers). For example:

unix% d	mcopy "acisf00884N001_evt	2.fits[bin ccd_id=0	9:1]" ccd_image.fit	s
unix% d	mlist ccd_image.fits bloc	ks		
Dataset	: ccd_image.fits			
Bl	ock Name	Туре	Dimensions	
Block Block	1: EVENTS_IMAGE 2: GTI7	<i>Image</i> Table	<i>Int2(10)</i> 2 cols x 1	rows

This can cause problems when you have an event file with more than  $\sim 2^{16}$  values (i.e. many event files). The solution is to use the <u>opt qualifier</u> to specify the desired datatype. Here we repeat the example, but force the type to be Int4 (4 byte integers):

unix% dmc	copy "acisf00884N001_evt2.fits[b	in ccd_id=0:9	:1][opt type=i4]" o	ccd_real4.fits			
unix% dmlist ccd_real4.fits blocks							
Dataset: ccd_real4.fits							
Bloc	ck Name	Туре	Dimensions				
	1: EVENTS_IMAGE 2: GTI7	<b>Image</b> Table	<b>Int4(10)</b> 2 cols x 1	rows			

For more information and a list of valid datatypes, see "ahelp dmopt."

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