



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

The warning indicates that some of the events chip coordinates are outside of the valid range, so `tg_resolve_events` cannot compute grating coordinates for them. Most grating observations will cause the tool to generate this message. It may be ignored, as long as the number of events outside the valid range is a small fraction of the total number of events in the file. For example:

```
unix% dmlist hrc_evt1.fits blocks
-----
Dataset: hrc_evt1.fits blocks
-----
      Block Name                Type          Dimensions
-----
Block   1: PRIMARY              Null
Block   2: EVENTS               Table         20 cols x 5866359 rows
Block   3: GTI                  Table         2 cols x 18 rows

(38950 / 5866359) * 100 = 0.663955
```

Since there are 5866359 events in the file, the 38950 for which grating coordinates *were not* computed make up just 0.66% of the total events.

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URL:  
[http://cxc.harvard.edu/ciao3.4/faq/tre\\_range.html](http://cxc.harvard.edu/ciao3.4/faq/tre_range.html)  
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## FAQ Entry – CIAO 3.4