

ctools - Bug #3509

Running ctbin with zero events in event files leads to an exception

01/21/2021 03:55 PM - Knödseder Jürgen

Status:	Rejected	Start date:	01/21/2021
Priority:	Normal	Due date:	
Assigned To:	Knödseder Jürgen	% Done:	100%
Category:		Estimated time:	0.00 hour
Target version:	2.0.0		

Description

Samuel Mc Keague reported that the following exception occurred when running ctbin:

```
2021-01-21T14:42:27: *** ERROR encountered in the execution of ctbin. Run aborted ...
```

```
2021-01-21T14:42:27: *** ERROR in GCTAEventCube::set_times(): Invalid value. No Good Time Intervals have been found in event cube. Every CTA event cube needs a definition of the Good Time Intervals.
```

Inspecting the log file (see attachment:ctbin.log) indicates that all input event files had zero events. It should be verified whether empty event files result in an error.

History

#1 - 06/02/2022 08:02 AM - Knödseder Jürgen

- Status changed from New to Rejected
- Assigned To set to Knödseder Jürgen
- % Done changed from 0 to 100

I created an empty events file by running ctobssim on a zero-length time interval and then run ctbin using this empty events file. The ctbin run succeeded without any exceptions:

```
2022-06-02T06:00:37: +=====+
2022-06-02T06:00:37: | Input observation |
2022-06-02T06:00:37: +=====+
2022-06-02T06:00:37: === GObservations ===
2022-06-02T06:00:37: Number of observations ....: 1
2022-06-02T06:00:37: Number of models .....: 0
2022-06-02T06:00:37: Number of observed events .: 0
2022-06-02T06:00:37: Number of predicted events : 0
2022-06-02T06:00:37:
2022-06-02T06:00:37: +=====+
2022-06-02T06:00:37: | Find unbinned observation |
2022-06-02T06:00:37: +=====+
2022-06-02T06:00:37: === CTA observation (id=000001) ===
2022-06-02T06:00:37: Including unbinned CTA observation
2022-06-02T06:00:37: === Summary ===
2022-06-02T06:00:37: Number of observations ....: 1
2022-06-02T06:00:37: Mean pointing .....: (RA,Dec)=(83.63,22.51)
2022-06-02T06:00:37: Use mean pointing .....: no
2022-06-02T06:00:37:
2022-06-02T06:00:37: +=====+
2022-06-02T06:00:37: | Bin observation |
2022-06-02T06:00:37: +=====+
2022-06-02T06:00:37: === CTA observation (id=000001) ===
2022-06-02T06:00:37: Events in list .....: 0
2022-06-02T06:00:37: Events in cube .....: 0
2022-06-02T06:00:37: Events outside RoI .....: 0
2022-06-02T06:00:37: Events with invalid WCS ...: 0
2022-06-02T06:00:37: Events outside cube area ...: 0
2022-06-02T06:00:37: Events outside energy bins : 0
2022-06-02T06:00:37:
2022-06-02T06:00:37: +=====+
2022-06-02T06:00:37: | Binned observation |
```

```
2022-06-02T06:00:37: +=====+
2022-06-02T06:00:37: === GObservations ===
2022-06-02T06:00:37: Number of observations ....: 1
2022-06-02T06:00:37: Number of models .....: 0
2022-06-02T06:00:37: Number of observed events .: 0
2022-06-02T06:00:37: Number of predicted events : 0
2022-06-02T06:00:37:
2022-06-02T06:00:37: +=====+
2022-06-02T06:00:37: | Save counts cube |
2022-06-02T06:00:37: +=====+
2022-06-02T06:00:37: Counts cube file .....: cntcube.fits
2022-06-02T06:00:37:
2022-06-02T06:00:37: Application "ctbin" terminated after 7 wall clock seconds, consuming 0.351977 seconds of CPU time and generating a carbon footprint of 0.000345996 g eCO2.
```

I therefore reject the issue.

Files			
ctbin.log	27.4 KB	01/21/2021	Knödseder Jürgen