

## GammaLib - Bug #3974

### Invalid UTC times

01/11/2022 08:47 AM - Knödlseider Jürgen

<b>Status:</b>	Closed	<b>Start date:</b>	01/11/2022
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assigned To:</b>	Knödlseider Jürgen	<b>% Done:</b>	100%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	2.0.0		
<b>Description</b> The following code snippet produces an invalid UTC string  <pre>&gt;&gt;&gt; import gammalib &gt;&gt;&gt; t=gammalib.GTime('JD 2436913') &gt;&gt;&gt; print t.utc() 1972-01--4404T11:59:18</pre> Note that according to the method documentation the GTime::utc() method is only valid for dates from year 1972 on. This is probably at the origin of the feature. Some code could be implemented that corrects the date for negative seconds.			
<b>Related issues:</b> Related to GammaLib - Bug # 3975: Correctly display UTC times before 1972 <b>Rejected</b> <b>01/13/2022</b>			

### History

#### #1 - 03/15/2022 12:11 PM - Knödlseider Jürgen

- Related to Bug #3975: Correctly display UTC times before 1972 added

#### #2 - 03/15/2022 12:13 PM - Knödlseider Jürgen

- Status changed from New to Pull request
- Assigned To set to Knödlseider Jürgen
- Target version set to 2.0.0
- % Done changed from 0 to 90

I added the following code to GTime::utc to cope with times before 1972:

```
while (day < 0) {
    year--;
    days = days_in_year(year);
    day += days;
}
```

This gives now

```
>>> import gammalib
>>> t=gammalib.GTime('JD 2436913')
>>> print t.utc()
1959-12-10T11:59:18
```

**#3 - 03/16/2022 11:40 AM - Knödseder Jürgen**

- *Status changed from Pull request to Closed*

- *% Done changed from 90 to 100*

Merged into devel.