# GammaLib - Action #1714

## Revise GTime operators

02/25/2016 03:39 PM - Knödlseder Jürgen

| | | | | |
|---|---|---|---|---|
| **Status:** | Closed | | **Start date:** | 02/25/2016 |
| **Priority:** | Normal | | **Due date:** | |
| **Assigned To:** | Knödlseder Jürgen | | **% Done:** | 100% |
| **Category:** | | | **Estimated time:** | 0.00 hour |
| **Target version:** | 1.1.0 | | | |

**Description**

It turns out that the current implementation of GTime operators does not make sense, as time is an absolute value, but addition and subtraction should always be relative operations. In addition, multiplication and division operators also do not make much sense for absolute values.

The GTime operators should be modified so that seconds are added or subtracted, or that the subtraction of two GTime objects lead to a difference in seconds. Here the list of operators that should be implemented:

```
  friend GTime   operator+(const GTime&  time,   const double& seconds);
  friend GTime   operator+(const double& seconds, const GTime&  time);
  friend GTime   operator-(const GTime&  time,   const double& seconds);
  friend double  operator-(const GTime&  a,      const GTime&  b);
  friend bool    operator==(const GTime& a,      const GTime& b);
  friend bool    operator!=(const GTime& a,      const GTime& b);
  friend bool    operator<(const GTime&  a,      const GTime& b);
  friend bool    operator<=(const GTime& a,      const GTime& b);
  friend bool    operator>(const GTime&  a,      const GTime& b);
  friend bool    operator>=(const GTime& a,      const GTime& b);
  GTime& operator+=(const double& seconds);
  GTime& operator-=(const double& seconds);
```

**History**

**#1 - 02/25/2016 08:30 PM - Knödlseder Jürgen**

*- Status changed from New to Closed*

*- % Done changed from 0 to 100*

*- Remaining (hours) set to 0.0*

Done and merged into devel.