

GPS time, MJD, UTC

Duo Tao

California Institute of Technology

July 22, 2018

Introduction

Today I encountered a couple different ways used to indicate date and time. They are GPS time, Modified Julian Day (MJD) and Universal Time Coordinated (UTC).

GPS time

According to leapsecond.com, GPS time is a time measured by atomic clock. The zero of GPS time is at January 6, 1980 [1].

MJD

According to Wikipedia, MJD is called Modified Julian Date . It starts at the midnight of November 17, 1858. It measures in days and takes fractions. For example, we can have a 0.5 in the date to indicate that 12 hours since the end of last day [2].

UTC

According to Wikipedia, UTC is short for Universal Time Coordinated. It is most commonly known as the Greenwich Mean Time [1]. Because the period of the Earth rotation is not exactly a constant, UTC differs from GPS time for a few seconds, which is called leap seconds. [3].

References



GPS, UTC and TAI Clocks.

<http://www.leapsecond.com/java/gpsclock.htm>.

Accessed: 2018-07-21.



Wikipedia contributors. *Julian day* — *Wikipedia, The Free Encyclopedia*. https://en.wikipedia.org/w/index.php?title=Julian_day&oldid=850807575. [Online; accessed 21-July-2018]. 2018.



Wikipedia contributors. *Leap second* — *Wikipedia, The Free Encyclopedia*. https://en.wikipedia.org/w/index.php?title=Leap_second&oldid=849000294. [Online; accessed 21-July-2018]. 2018.