## Preliminary views on the future of UTC

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## Abstract

The Coordinated Universal Time (UTC) has been used for more than 40 years as the international standard time-scale for all practical timekeeping. It is maintained by large amount of atomic clocks distributed around the world and is adjusted by leap second to approximate the Universal Time UT1. As a precise time scale it is essentially an "atomic time" and is also approximately a "mean solar time" in 1 second level. The definition, realization and functions of UTC are discussed. The preliminary views on the future of UTC are given. With the development of automation technology and precise measurement technology the requirements of a continuous time scale and precise Earth Orientation Parameters (EOP) become more and more urgent. As a precise time scale and the practical time standard, UTC had better to give up the role of approximate UT1 and stop the insertions of the leap seconds. The precise EOP should be broadcasted by other means such as GNSS and the Internet.