

Operating Systems

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L-14: CurrentTimeMillis() Article

Define the Following:

- Millisecond- is a unit conversion for a base unit of seconds and is the standard response from a call to the `System.currentTimeMillis()` commonly used to compare/return time in UTC for programming and systems applications
- UTC- Is the universal time keeping standard, it stands for Coordinated Universal Time. It is used for a universal time measurement for different places around the world as a standardized time measurement for locations on either side of the Prime Meridian
- GMT- stands for Greenwich Mean Time which is the Timezone for the Prime Meridian (0 degrees Longitude), The UTC time expression is for the whole planet and the GMT time is only for the Prime Meridian timezone.
- Second (How is it measured by international standard?)-
- Unix Epoch- The established Time (in milliseconds) for which is the established standard for UTC, the benefits of choosing this method for architecture clarity. Most Programming languages reference Unix Epoch and thus there is an easy transformation with different languages
- Timestamp- This is a representation of a moment defined since the establishment of the UNIX epoch which is dated as 1970-01-01 00:00:00 UTC. This means that two individuals calling the `System.currentTimeMillis()` method in Java should get the same UNIX Timestamp no matter where they are located in the world.

What is the Difference between precision and accuracy?

Both are measurements for the two ways that scientists think about error.

Precision: This references the close proximity of of the same item, in this article one could compare precision from the various forms of UTC and UNIX Conversions of milliseconds to seconds that each programming language and calculate.

Accuracy: This measurement represents the close proximity to the acceptable value that is known to be correct, and doesn't relate to the comparison of different techniques only the close approximation to the correct results