

Problem of the Precise Second on Earthquake Recorders

There are lots of challenges producing earthquake recorders and matching of second length of various instruments where they produce separately but use together in a networks. Second in electronic systems has a specific definition and it is the number of clock oscillation of an oscillator that producer declare in a specific temperature. As an example a 16MHz oscillator means that this oscillator oscillate around 16million times in a second. But the design doesn't finish as simple as this. This second has not enough precision and this is the main reason that seismologist use GPS to sync their data. But does GPS could simply resolve all the problems? This study most important challenges in this regard are considered. We try to describe how GPS losing errors can be resolved and minimized. Many applicable details are described to brighten the all sides of the time problem in data recording.

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