

SYSTEM FOR MEASURING A TIME OFFSET AND METHOD OF MEASURING A TIME OFFSET

ABSTRACT

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A system and method for measuring the time offsets of a plurality of acoustic sensor nodes 14 relative to a reference time. The system comprises an acoustic transceiver 22 arranged to transmit a first signal 42 to each acoustic sensor node 14 and a processing resource 18 arranged to record the transmission time of the first signal 42, relative to the reference time. The acoustic sensor nodes 14 are arranged to receive the first signal 42 and to transmit a return second signal 44 to the acoustic transceiver 22 after a predetermined time delay, the second signal 44 including the current acoustic sensor node internal time. Further, the acoustic transceiver 22 is arranged to receive the second signal 44, and the processing resource 18 records the time at which the second signal 44 was received relative to the reference time and records also the combined time of flight of the first 42 and second signal 44. From this data the time offset between the sensor node internal time and the reference time is calculated.

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(Figure 1)