

## Technical control: TimeBox (Computer Mode v1.5.3)

Software: Genika Trigger<sup>®</sup> AiryLab (<http://www.airylab.com>).

Camera: Basler 640-100gm at 200 fps and 50uSec exposition at 200 fps (Gigabit Ethernet).

Computer: Lenovo ThinkPad Intel i5 Core i5-540M (2.53GHz, 3MB Cache), 4GB DDR3 RAM, USB2.0 port.

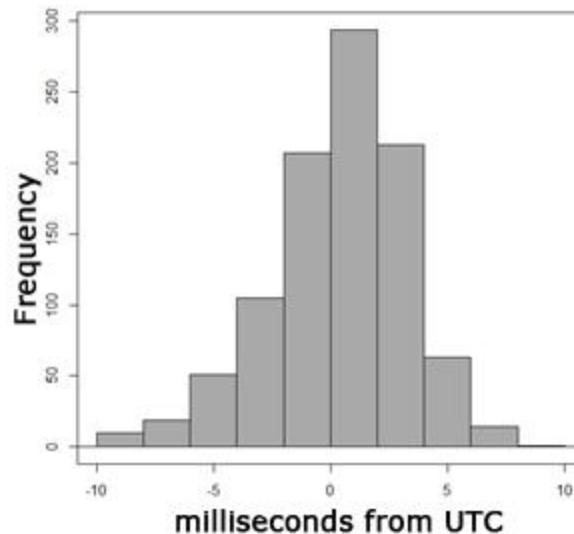
Synchronization: TimeBox, Computer time (mode) and continuous PC time synchronization.

Properties: Mean of 6 values (filter out above 6 STD), Offset - 5 msec. Synchronize every 120 seconds, Tolerance 4 STD and Corrected after 30 values above tolerance (4-8 STD). Correct after 15 values above tolerance (8 STD).

Description: The PC time was continuously synchronized (UTC time) as described. Genika Trigger saved and dated the firing of each PPS LED. The difference between the PC-time and the start of the PPS LED pulse was measured (n= 977, milliseconds) and the results analyzed using R Statistical Software.

### Results:

Mean	STD	IQR	0%	5%	50%	95%	100%	n
<b>0.8485</b>	2.9090	4	-10	-4	1	5	9	<b>977</b>



Values inside 95% Interval of Confidence (2xSTD):  $-4 \geq 0.8485 \leq 5$

**Camera Jitter at 200 fps = 5 milliseconds**