Do you see what I mean?

Computer driven tachistoscopes: an empirical comparison of the CRT, LCD, LCD/DLP Projectors and a lamp modified multi projector system(Beam).

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As mentioned before, an important factor in short stimuli presentation is the presentation software used. Accurate single frame stimulus presentation software is not trivial, especially not for the Windows platform. Software techniques that enable good timing accuracy are now well known (Forster & Forster, 2003), despite many (even commercial) programs that st

sufficient to check the manufacturer’s specifications. These specs should be tested with rather easy measurements as described in this section.

To get the best apparatus, we pre se

falling flank. For the pulsating light devises we took the total of the duration of each single pulse. For relative maximum luminance we used the peak value reached in the specific condition compared with the peak luminance value found in the whole

LCD projector
The Sanyo PLC-XT16 has a maximum refresh rate of 100Hz at a resolution of 1024x768. During testing we noticed all projectors tested (n=11) had single frame display problems above the 60Hz. At refresh rates higher than 60 Hz refreshes appear not to be synchronized with the screen verTjalrestracead alls

The LCD projector had a mean (and *SD*) relative maximum luminance of 97.97% (0.66) on the first single frame presentation and 99.02% (0.54) on the four frame presentation. For the 4 frame event the mean (and *SD*

latency on the upper left sensor was 0.02msec. (0.02). The initial latency screen position difference was 0.0 msec. (0.0). The mean (and *SD*) rise time was 0.04 msec. (0.02) and the mean (and *SD*) fall time was 0.08 msec. (0.03). The mean (and *SD*) presentation duration for the BEAM system on the 2 msec event was 2.03 msec. (0.02).

Discussion

It is clear by now that there are various possibilities for visual stimuli presentation. Each device has its pro’s and cons. Although the CRT plots indicate the screen is

ideal. Since the picture is buffered it will always be one full frame late. Please take

Forester K. I. & Forester J. C. (2003). DMDX: A Windows display program with millisecond accuracy. *Behavior Research Methods, Instruments, & Computers,* **35**, 116-124.

Hunter N., Duboff J. M., Oscar-Berman M. & Mueller S. (1999). Comparing visual perception on conventional cabinet tachistoscopes and computer monitor tachistoscopes. *Behavior Research*