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## Eye-tracking as a research tool to analyse work conducted by harvester operators

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The complexity in harvester operations is well acknowledged, but what operators actually do during work is challenging to study. However, modern technology enables new possibilities, as analysis of where operators look during their work. Therefore, we aspired to study where ten operators looked during their normal operations by use of a 30 Hz portable eye-tracker. To follow the eyes in natural lighting and in a moving and vibrating harvester was challenging for the eye-tracker, with 11-41 % missing data on where the operator looked. Despite relatively poor samples, the tree processing could be characterized by operators rapidly shifting focus between the areas of interests (AOI:s) harvester head, saw, different parts of the stem and the log pile, with on average 2.4 AOI/s. Importance of exact maneuvering during positioning of the harvester head and during felling was reflected by long looks towards the harvester head (on average 1.2 s/look). The bucking computer's monitor was rarely consulted (2 % of total time, 6 % of processing time), but more frequently during final felling than during thinning. The analysis of lost samples revealed the importance of, a priori to a test, choosing appropriate AOI:s based on location relative to the driver. Exclusion of periods with machine driving increased the amount of correct data even further. Despite interesting findings, the eye-tracking device seems more suitable for lab testing than field studies. Thus, it may provide valuable in simulator studies, giving insights when investigating effects of e.g. automation or new decision support systems.