

Measuring User Experience (UX) - Image Checkpoints

To receive user-experience oriented measurements on *rendered* image content, you can set checkpoints on images and expect an accuracy of $\pm\frac{1}{2}$ second in the UX timer, based on the real result. For example, if the real image shows 10 seconds from the trigger of the checkpoint, the UX timer will be between 9.5 seconds and 10.5 seconds. The UX timer is based on rendered text and images from the device UI, ensuring the desired rendered content is indeed visible and recognizable. This is different from other methods, including network traffic analysis or native object analysis, which may give false insight where the desired content is not, in fact, rendered on the screen.

Note: Specifically in native applications, it is important to distinguish between static content that is delivered with the application vs. dynamic content that is pulled from the service APIs. **If you measure static content, you will likely get very short or even zero times** because you really measure only the device processing and rendering time. On the other hand, what may be more interesting is to measure dynamically rendered content that is fetched from the service APIs, representing the round trip time, backend efficiency, the device/OS/application efficiency in receiving, decrypting, processing and rendering content.

To achieve a UX timer with high accuracy, define the following parameter settings:

- **accuracy=true**
- **source=camera**
- **match mode=same size**

The `match mode` parameter is valid for checkpoint images only (*not* for text).