String™

Augmented Reality SDK for iOS

Marker Guidelines

- For the purposes of this document, “marker image” is defined as an arbitrary image within a solid black rectangular border. The solid white surrounding margin required for detection is not defined as part of the marker image.

- **Marker images should always be tested in situ.** Surroundings and lighting conditions matter. Remember to test at different distances and while moving the camera.

- The marker image must have a solid black rectangular outer border. The border thickness should be about 1/10th of the longest side of the image.

- The marker image must sit on a solid white background. The white margin around the marker image must be as thick as the black border, preferably thicker. **Note that if the white margin is immediately surrounded by a solid, quite dark color, it needs to be thicker for reliable tracking.**

- The aspect ratio of the image is used when matching it to markers in the frame; make sure you don’t change the aspect ratio when downscaling from print resolution. Non-square image markers are actually slightly more performance-efficient, as they make it easier for the tracker to understand the marker’s orientation in the video frame.

- **Reasonably even aspect ratios are strongly encouraged for tracking stability.** For instance, 1:1, 4:3 and 3:2 are all fine (or, conversely, 3:4 and 2:3), but e.g. 2:1 or 1:2 is too uneven for optimum tracking stability.

- The larger the image, the longer it takes to load and decompress; 200×150 pixels, for example, is enough. The dimensions of the image do affect load time somewhat, but not the memory footprint or performance once the image is loaded. When you scale down your marker image from the print-sized version, make sure you use a high quality downscaler such as Photoshop.

- The image within the black border should contain a fair amount of large-to-medium-sized detail. Anything but the most austere logos and such should be ok.

- The image should not be rotation-invariant, i.e. if you scale it to be square and rotate it in 90 degree increments, it should not look identical.