

ISO/IEC JTC 1/SC 29/WG 1
(ITU-T SG16)

Coding of Still Pictures

JBIG

Joint Bi-level Image
Experts Group

JPEG

Joint Photographic
Experts Group

TITLE: JPEG AI Call for Evidence Subjective Testing Related Decisions

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1. Purpose of This Document

The objective of this document is to report the decisions made at the 88th JPEG Meeting with respect to the subjective evaluation of the JPEG AI Call for Evidence (CfE) proponents' submissions.

2. Subjective Assessment Methodology

During the JPEG AI breakout meetings of the 88th JPEG meeting, the following decisions were made:

- All six CfE proponents' submissions pass to the next stage, and thus will be subjectively evaluated.
- Due to the COVID-19 pandemic, subjective evaluation will be performed following a crowdsourcing approach.
- *QualityCrowd* software and *Amazon Mechanical Turk* (or other similar platform) will be used for crowdsourcing.
- Two viewing sessions will be performed: one involving experts (to be announced in the JPEG AI reflector) and another involving naïve subjects.
- The images to be used in the subjective evaluation will correspond to crops of the decoded images such that relevant coding artifacts are included.
- Subjective quality test will be performed with original and reconstructed images placed side-by-side: respectively, left-right and right-left with the same number of occurrences for each place arrangement.
- A double stimulus assessment methodology will be used.
- A fixed set of 8 crops will be made from this initial set of 10 images: jpegai01 (*Matterhorn*), jpegai02 (*Racing car*), jpegai05 (*Las Vegas sign*), jpegai06 (*Train*), jpegai07 (*Windows*), jpegai09 (*Port*), jpegai10 (*Curiosity rover*), jpegai11 (*Bell pepper*), jpegai12 (*Woman*) and jpegai14 (*Beach*).
- JPEG 2000 visually optimized and HEVC Intra will be used as anchors in the subjective evaluation.
- 4 bitrate points covering a wide range of qualities will be used in the subjective evaluation.