

Web3D 2020 MAR Standards Workshop

Organizer: Gerard J. Kim

Korea University, ISO SC 24 WG 9 (MAR) Convener

Objective and Background

- Mixed and augmented reality (MAR) is on the brink of large-scale consumer level commercialization.
 - For MAR to succeed and proliferate as an information media and new contents platform, standards will be necessary so that
 - MAR system components can easily be plugged in and contents shared and interoperable.
- The workshop will be an arena to discuss and lay a foundation to many issues of standardization for MAR, including (but not limited to):
 - proper subareas for standards and abstract levels,
 - physical and environment object representation, content file format, standard calibration process, augmentation and display style standards, standards for non-visual and multimodal augmentation, object feature presentation, benchmarking, etc.

Objective and Background

- Despite its importance, there has been very little discussion of standards for MAR, especially from the academics and research community. It is critical that standards for MAR be developed on a sound basis with input from the academia and research community, for it to be correct, comprehensive, effective and extendible for the future.
- Standardization for MAR is being pushed through few organizations, such as the ISO (International Standards Organization), OGC (Open Geospatial Consortium) and by grass root organizations such as the Perey Associates. Such movements reflect the recent rise in the interest in AR and the large commercialization efforts. However, there are so many areas to cover and the efforts are still limited by the lack of area experts.

Format of the workshop (1 day long)

- Presentation of position papers and in-depth discussion.
- Position papers will be solicited (and organized for presentations and discussion) with particular emphasis and focus on those areas that are expected to have large and immediate impacts by standardization (e.g. marker standards, image feature standards, contents format, benchmarking, calibration).
- A similar workshop at SIGGRAPH and ISMAR drew at least 10-12 presentations and more than 60-70 participants. Thus, we expect 20-30 submissions, 10-12 position papers (max) and 40-50 interested participants.

Preliminary Call for Papers

- The workshop will be an arena to discuss and lay a foundation to many issues of standardization for MAR, including (but not limited to):
 - Proper subareas for standards and abstract levels
 - Physical and environment object representation
 - Content file format
 - Standard calibration process
 - Augmentation and display style standards
 - Standards for non-visual and multimodal augmentation
 - Benchmarking
 - Standards for tracking and recognition
- Position papers are solicited on the areas listed above (but not limited to) and will be presented and discussed. Accepted papers and presentations will be published as a workshop proceeding and be invited to participate in the relevant standards developing organization such as the ISO.

Organization

- Organizer – Gerard J. Kim (gjkim@korea.ac.kr)
- Program Committee – TBA
- Deadlines – TBA
- Note: This workshop will officially be submitted to Web3D workshop chairs for consideration like any other Web3D workshops, thus is subject to the acceptance by the Web3D workshop chairs.