



synergiz
harbor

**HARBOR PLATFORM
CONTENT + COLLAB**

HARBOR PLATFORM CONTENT +COLLAB.

- Collaborate locally and remotely in mixed reality

APPLICATION WEB



MANIPULATION FEATURES

- Free manipulation in 3 dimensions for quick placement and fine-tuning for precise placement (translation, rotation)
- Direct and remote object manipulation
- Scaling
 - 1:1 (real-size based on model size)
 - 1m3 (the model fits within a 1m x 1m x 1m cube)
 - Custom
- Custom Explosion of 3D models into sub-parts (for those that support it)
- Locking an asset (preventing further manipulations)

COLLABORATION

- Real-time communication between multiple HoloLens headsets connected to the same session
- Users connected to the same session share the same 3D environment, and any actions performed by one user are visible to others (manipulating a model, controlling video playback, changing document pages, etc.)
- Local collaboration among all users in the same location
- Remote collaboration: Remote users are represented by animated avatars (head and hands, fingers) with spatialized audio feedback for voice communication

REAL-WORLD ENVIRONMENT INTEGRATION

- Collision of assets with real surfaces and other assets
- Occlusion of an asset by real-world volumes (furniture, buildings, etc.)

ASSET LOADING

- Assets can be loaded onto the HoloLens headset through copying
- Assets can be published on the Harbor Platform and shared within a team

SUPPORTED MEDIA FORMATS

- 3D Models: GLB, OBJ, FBX (via Harbor Platform), STEP (via Harbor Platform)
- Animated 3D Models: GLB
- Images : JPG et PNG
- Vidéos : MP4
- Office documents: PDF

TOOLBOX

- Asset gallery with thumbnails and management of displayed assets
- Laser pointer
- Cross-section plane to reveal the interior of a 3D model
- Text comments through keyboard input and voice recognition
- Masking and highlighting of parts of 3D models (for models that have sub-parts)
- Taking photos
- Taking measurements

SCENE CONSTRUCTION

- Ability to display multiple scenes with different content (one scene = arrangement of assets in the real environment)
- Positioning of assets within the space of each scene
- Navigation between scenes

EQUIPMENT MANAGEMENT

- Declaration of HoloLens devices and Harbor Hubs with access to Harbor Platform
- Deployment of projects on these devices

USER MANAGEMENT

- Declaration of users
- Assignment of roles (administrator, contributor, reader)

ASSET MANAGEMENT

- Creation of projects to contain assets
- Organization of projects into folders and subfolders
- Project categorization for different uses (simple project, multi-scene «scene builder,» etc.)

SCENE CONSTRUCTION

- Declaration of scenes (one scene = arrangement of assets in the real environment)
- Adding assets to each scene

STANDALONE OPERATION

- Retrieval of copies of projects created on Harbor Platform
- Creation of visualization sessions.

SESSION MANAGEMENT

- Creation of remote collaboration sessions
- Saving of data created during a session (assets positioned in space, comments, scenes, etc.)
- Possibility to restart a saved session to retrieve assets in the same placement. Session created on Harbor Platform or Harbor Hub.
- Session report (present users, actions performed, etc.).

CONVERSION AND SIMPLIFICATION OF 3D MODELS

- Automatic simplification of complex 3D models (up to 500k polygons)
- Format conversion if necessary
- Generation of thumbnails for all assets

LOCAL COLLABORATION

- Real-time communication between connected HoloLens headsets (via the Harbor Player application)
- All users are present in the same location
- Possibility to restart a created and saved session on Harbor Platform (and vice versa)

SYNCHRONIZATION WITH HARBOR PLATFORM

- Retrieval of projects created on Harbor Platform and marked for deployment on this equipment, along with their associated sessions
- Sending of created sessions on Harbor Hub with their data