

About AECOM

AECOM is the world’s premier infrastructure consulting firm, delivering professional services throughout the project lifecycle – from planning, design and engineering to program and construction management. On projects spanning transportation, buildings, water, energy and the environment, our public- and private-sector clients trust us to solve their most complex challenges. Our teams are driven by a common purpose to deliver a better world through our unrivaled technical expertise and innovation, a culture of equity, diversity and inclusion, and a commitment to environmental, social and governance priorities. AECOM is a *Fortune 500* firm and its Professional Services business had revenue of \$13.2 billion in fiscal year 2020. See how we deliver what others can only imagine at aecom.com and [@AECOM](https://twitter.com/AECOM).

**About AECOM Immersive Lab
Visualizing the Future**

We’re blurring the lines between physical and digital worlds with virtual and augmented reality. By bringing existing digital assets to life, our clients can interact with their projects throughout the design process, visualizing the future like never before.



Modeling

- 360 Spatial Analysis and Mapping
- Virtual Reality Interactive Environment



Engagement

- Digital Rendering and Animation
- 360 Virtual Public Consultation



Construction

- AR Onsite Construction Management



Education

- AR Smart City and Wayfinding
- VR Virtual Storytelling

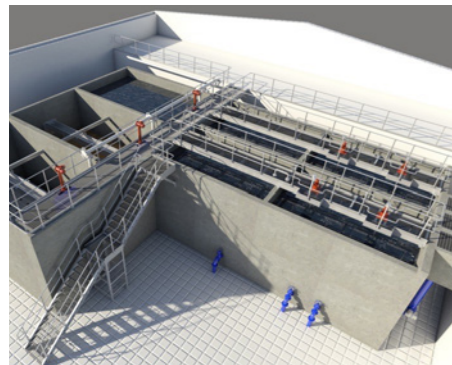


Our Vision

A highly digitalized construction management tool achieving a safer, smarter and faster remote workflow

AECOM is offering AEC engineering team the access of 3D building information model (BIM) on job site aiming to reduce the effort of conventional paper-based onsite management work. We aim to realize intelligent management workflow and build a safe, efficient and accurate remote collaboration mode supported by the cloud system.

AR Spatial Visualiser, integrating BIM, cloud database, and the augmented reality (AR), is capable of loading and projecting 3D model onto the physical environment in true coordinate. Based on intuitive data visualisation, the system improves the quality and efficiency of conventional construction works. Furthermore, it helps the industry to discover hidden benefit and more usage of existing digital assets. With low deployment cost and user-friendly interface, this tool not only helps to ensure reliable digital project management in a cost-effective manner but also potentially reduces the communication, traffic and safety costs originated from frequent site visits. AR Spatial Visualiser offers new opportunities for the AEC industry in the digital era.



Unlock Value of Existing Digital Assets

We are empowering mobile devices to access the project 3D model (or BIM) onsite exploring more possibilities of the existing digital assets in the whole construction life cycle.



Uncover Hidden Issues with Higher Accuracy

Overlaying true scale 3D model onto the physical space enables field staffs to check every hidden detail behind the wall and ceiling achieving proper construction planning as well as avoiding risks of rework, delay and site hazard.



Smart and Efficient Working Model

Issue reports can be created in-app and share via cloud live sync between the design and construction team for remote checking and fixing, which improves the efficiency of communication and collaboration in the post-COVID era.

Scenarios

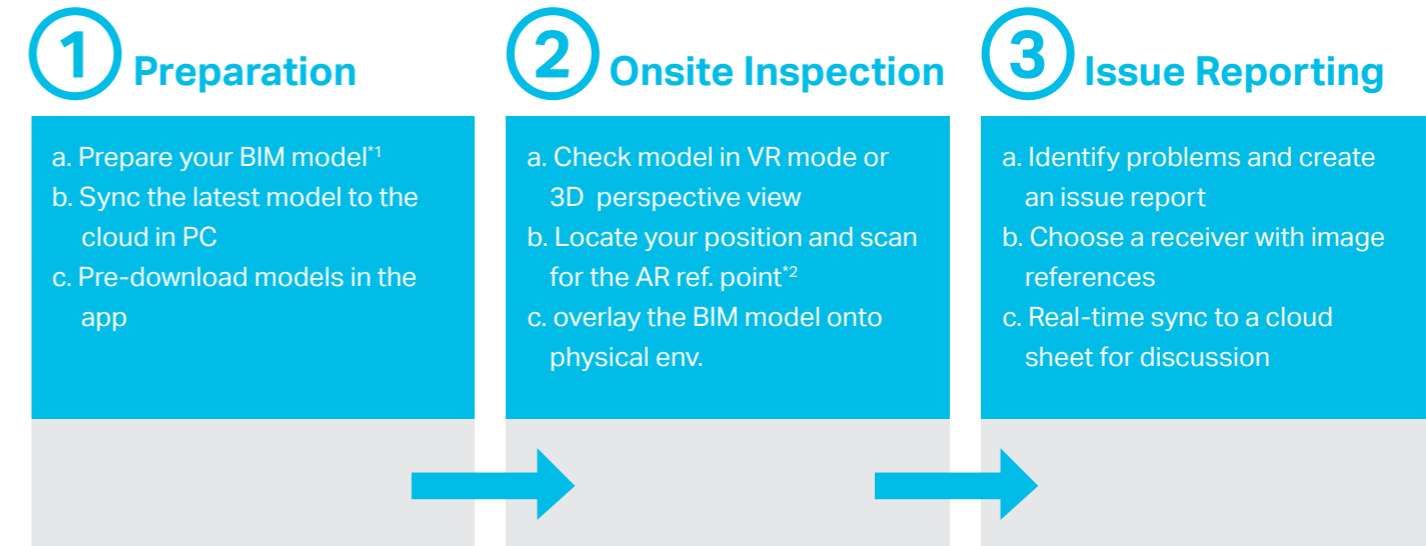
Design and Construction

- Verification of design concept and usability
- Schedule planning and progress checking
- Site supervision, inspection and QA/QC
- Public consultation and client presentation

Facility Management

- Regular facility maintenance and repair (for small and medium building)
- Schedule planning and progress checking (for facility renovation or replacement)
- IoT-aided cloud building monitoring (in test)

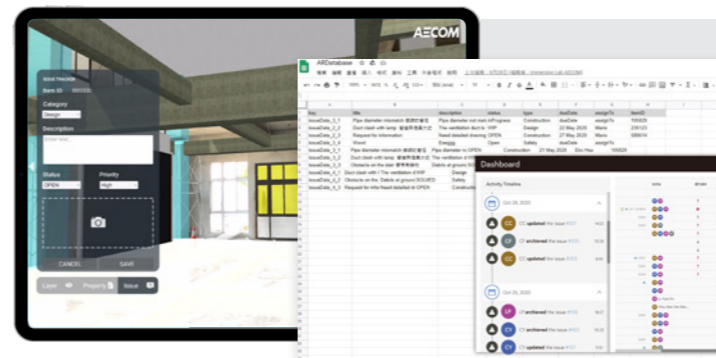
Workflow



*1 Current support of products : Autodesk Revit/Autodesk Navisworks/Rhino/Sketchup ; In roadmap: Autodesk BIM360/ArchiCAD (source: <https://unity.com/products/unity-reflect>)

*2 To activate AR function, please make sure your device supports ARCore (Android) or ARKit (iOS).

Key Features

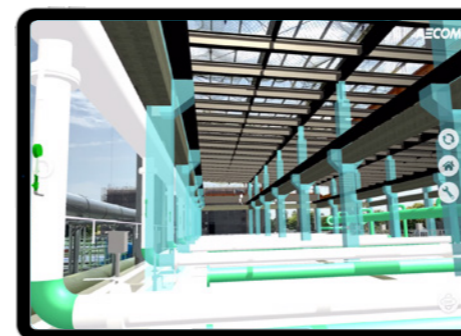
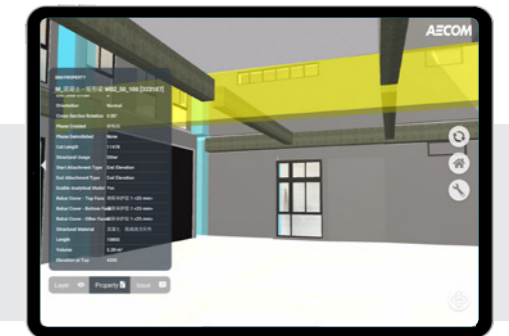


CLOUD ISSUE TRACKER

Marking the objects with description and ref image when finding the issue and assign the task through the cloud worksheet.

PROPERTY AND LAYER VIEWER

Selecting any 3D object to check its BIM properties and toggle to hide or display certain layers



AR TRUE SCALE PROJECTION

Overlay true scale 3D model onto the physical environment^{*1} for intuitive onsite project review and inspection

*1 Suggest to use the mobile device that equips either ToF Camera or LiDAR to have better experience of spatial scanning