

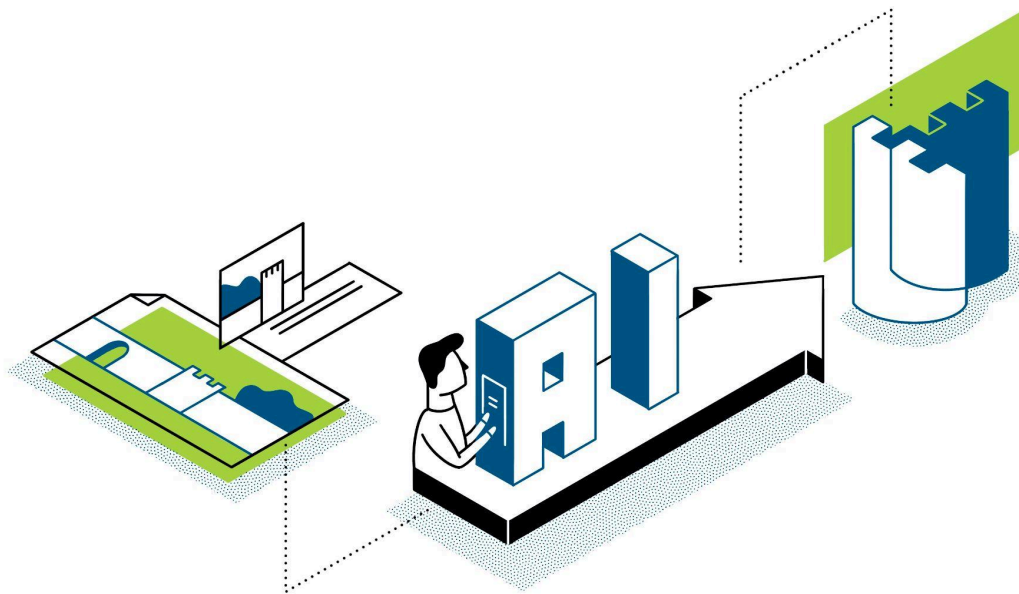
## FACT SHEET AI 3D BUILDER

The AI 3D Builder is designed to transform two-dimensional images into complete, usable 3D models. Its goal is to drastically reduce the time required to create 3D assets by automating a process that traditionally demands expertise in modelling, texturing, and rendering. At the heart of this pipeline lies Trellis, a system based on an AI architecture that employs Structured Latents (SLAT) representation, enabling the system to capture visual characteristics and implicit spatial relationships to reconstruct 3D geometry coherently and realistically.

## WHAT IS THE AI 3D BUILDER?

AI 3D Builder is a 3D modelling pipeline that helps users create 3D models from 2D images, such as archival photographs or documentation images.

The tool lowers the entry barrier for creating 3D content from existing collections.



## WHO IS THE AI 3D BUILDER FOR?

- Cultural Heritage Professionals
- Researchers
- Institutions without in-house 3D infrastructure or expertise

## KEY FEATURES

- Upload sets of 2D images
- AI-assisted 3D reconstruction
- Configurable quality and processing options
- Export to open, industry-standard binary file format for 3D models (GLB)
- Optional refinement by advanced users

## EXAMPLE USER STORY

*A city archive has a collection of digitised images showing views of a lost building. They would like to prepare a 3D representation of the building based on the visual evidence for research and valorisation of the collection and archive.*

1. Archivists select and prepare photographs (based on AI 3D Builder guidelines).
2. Images are uploaded to the AI 3D Builder image-to-3D generation model.
3. The images are processed, and the results are exported.GLB format.
4. The 3D model can be adjusted as needed in any 3D modelling application accepting .GLB format files.
5. The final 3D model is exported and available for use as needed.

## OUTPUT

A reusable 3D model in industry standard GLB/GLTF format.

## WHAT DO YOU NEED?

- Image sets (minimum quality requirements)
- Web access
- No prior 3D modelling experience required
- A 2D image editor such as Photoshop, Photopea (web based) etc.
- A 3D model editor such as Blender, Maya, etc. installed

## SUPPORTED FORMATS

Image supported in .png and .jpg formats.

## ADDITIONAL RESOURCES

- Demo on [YouTube](#)
- Step by step guidelines

## ESTIMATED TIME

The AI generation process takes a few minutes. Polishing the resulting model obviously may vary based on several factors: the user skills on 3D modelling, the complexity of the 3D object involved, the level of detail needed etc. However, it typically requires a few hours.

## SKILL LEVEL

No prior 3D modelling experience is required to use the AI tool. A basic 3D modelling expertise is suggested nonetheless for polishing the resulting 3D models, according to the expected quality of the final outcome.

## EFFORT REQUIRED

For the AI tool generation stage, the required effort consists in basically selecting an appropriate set of images, potentially editing them for best results (e.g. cropping the parts of the image needed from the background). Polishing further a model may require additional steps according to the final quality users aim at. See the step by step guidelines for more details about it.