PHOTOGRAMMETRY – AGISOFT METASHAPE

Building a Textured Model (Professional Edition) (04.10)

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ABOUT AGISOFT METASHAPE

Agisoft Metashape is a stand-alone software product that performs photogrammetric processing of digital images and generates 3D spatial data to be used in GIS applications, cultural heritage documentation, and visual effects production as well as for indirect measurements of objects of various scales. This software provides a platform for cultural heritage specialists to create virtual reality scenes, textured 3D meshes, orthographic projections, geo-referenced maps and much more from images and/or laser scans completely automatically.

This **ASOR Tutorial (04.10)** will demonstrate how to build a textured model in Agisoft Metashape Professional on a Windows desktop. Metashape can construct a polygonal mesh model (See **ASOR Tutorial 04.09—Building a Mesh Model**) that applies a texture layer based on the photos used to create the model.

ASOR's tutorials for Metashape are focused on creating 3D surfaces and orthophotos of objects, monuments, and architecture during cultural heritage surveys through the eastern Mediterranean and northern Africa. ASOR plans to expand the scope of its photogrammetry tutorials, however for any questions that aren't covered in these tutorials, please visit Agisoft's Community page, which includes video and written tutorials, the software's manual, and a community forum comprised of Metashape users.
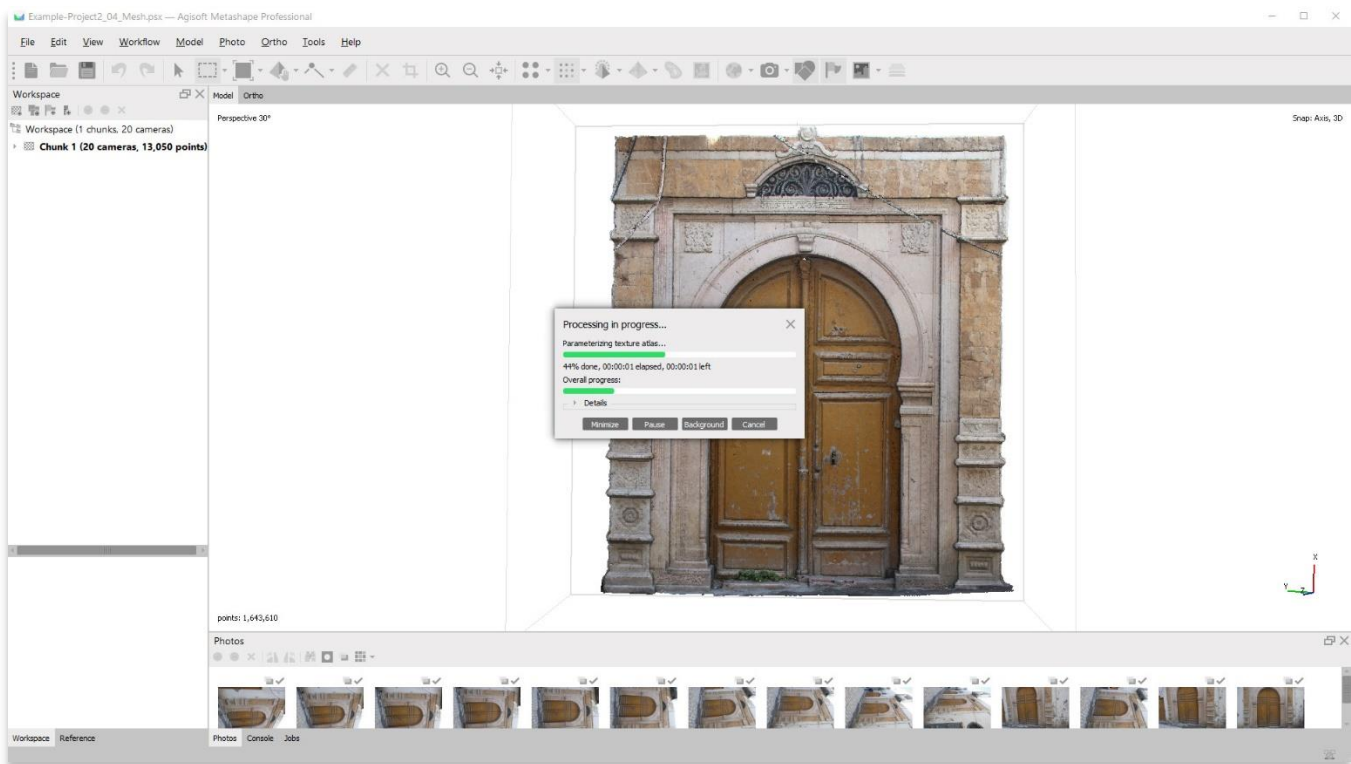
BUILD A TEXTURED MODEL

1. Begin building a texture model by selecting the **Workflow Menu** > **Build Texture**.
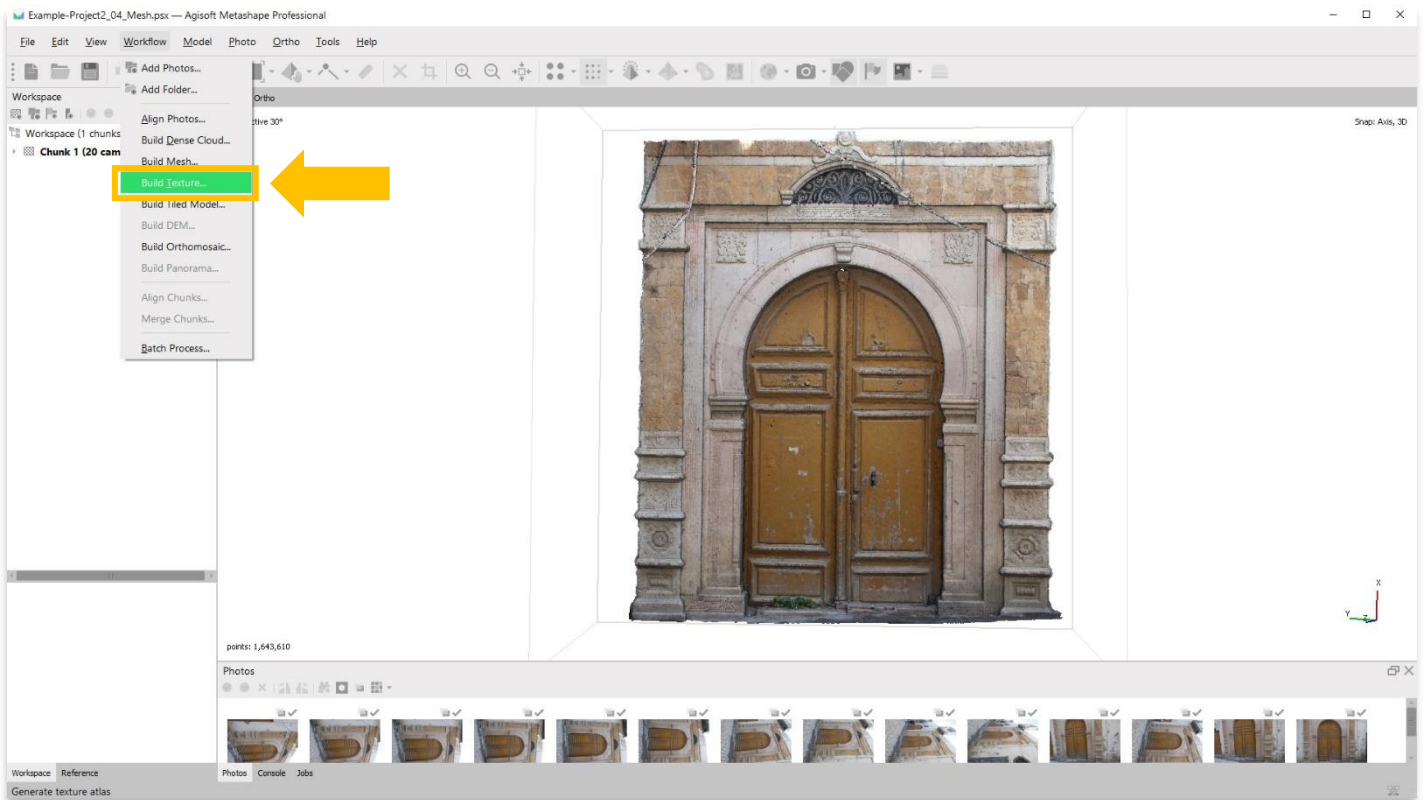
2. A pop-up will appear that provides options for setting the accuracy of the model. Use the following settings show in the screenshot below. Press **OK** when ready.
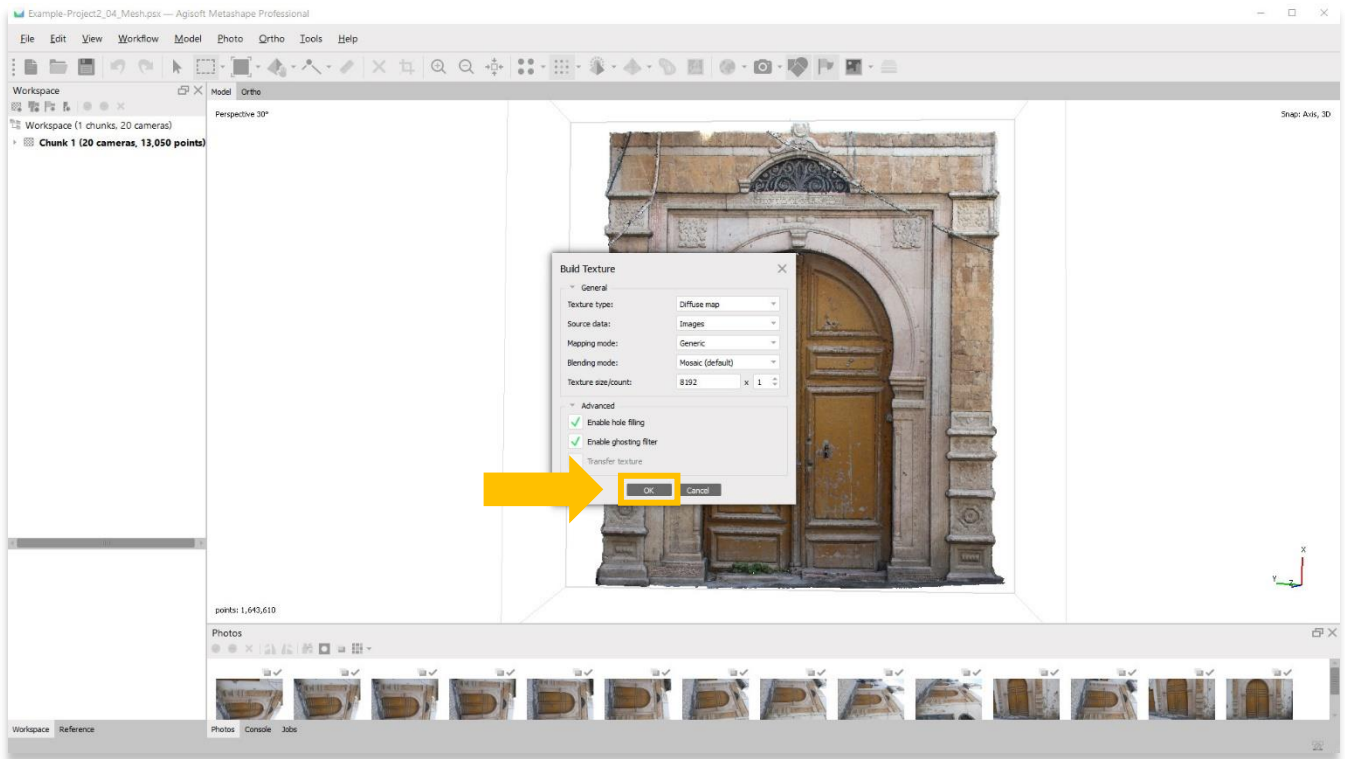

3. This step could take several hours or even days to complete. Your computer may not have enough RAM or memory to complete this step at **Highest** accuracy. Select the next best option until you are able to complete this step.

4. Once completed, the main panel will render a <u>textured</u> representation of your object/3D surface. To view the texture model, choose the **Model** button in the top tool bar, then select **Model Textured**.
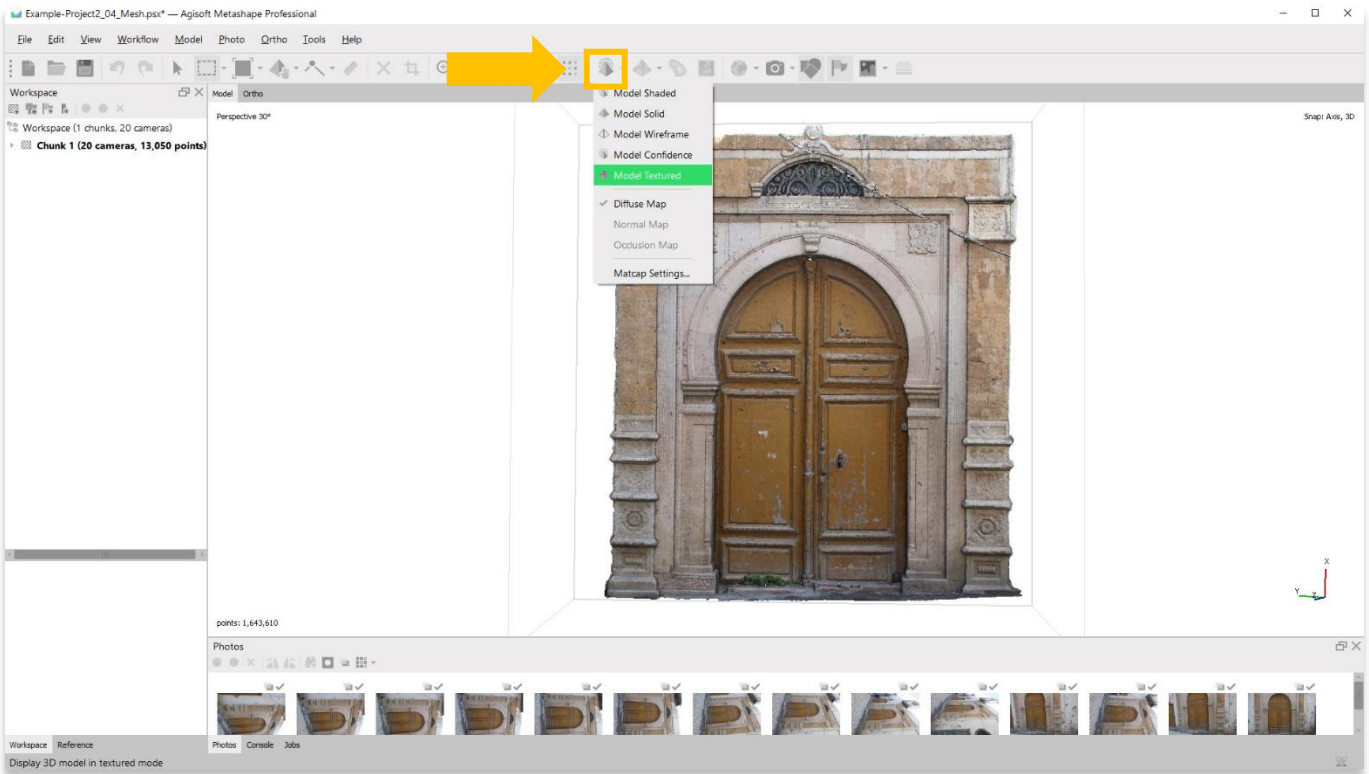
5. A **Textured Model** displays polygonal mesh model (See **ASOR Tutorial 04.09—Building a Mesh Model**) that applies a texture layer based on the photos used to create the model.
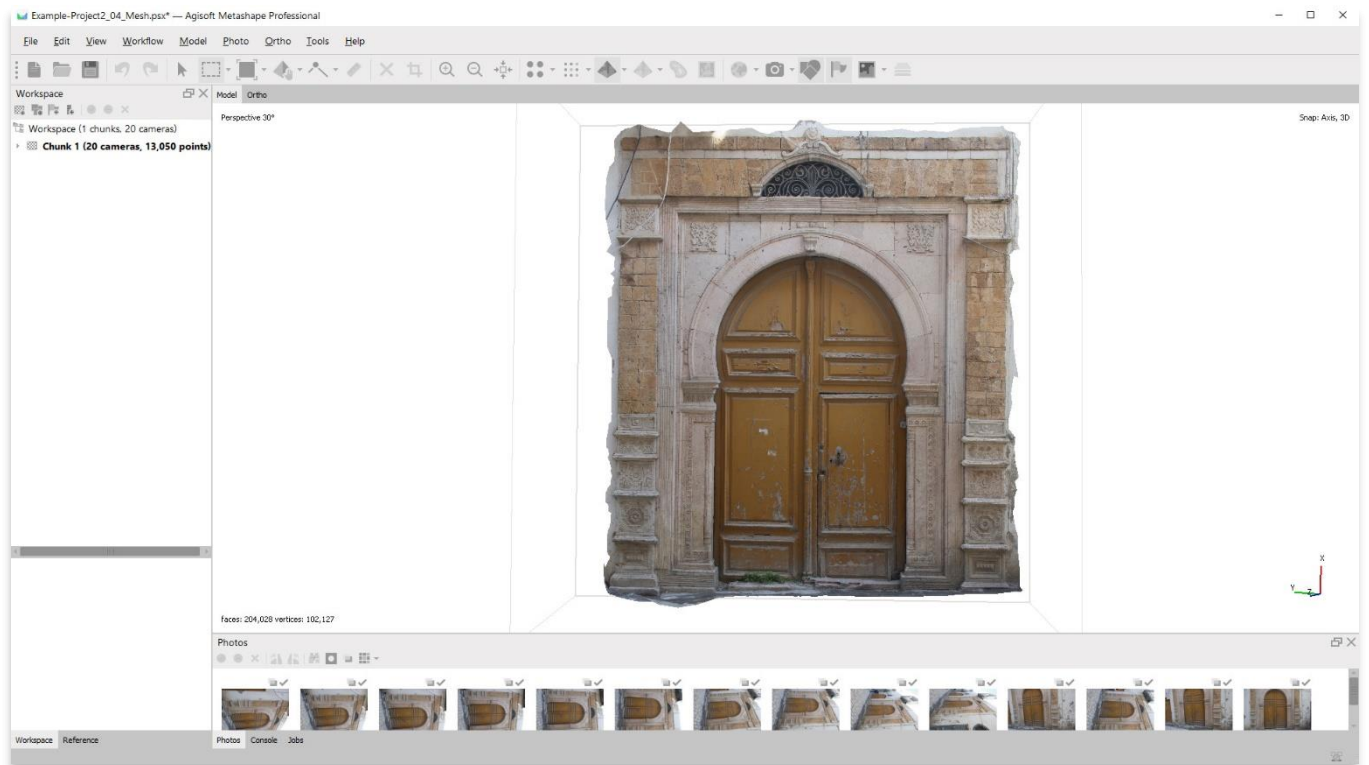
6. You can see the differences between a textured model and a dense cloud model by zooming in. Textured models do not have any holes or gaps, rather they present a continuous surface overlayed with photographic rendering.
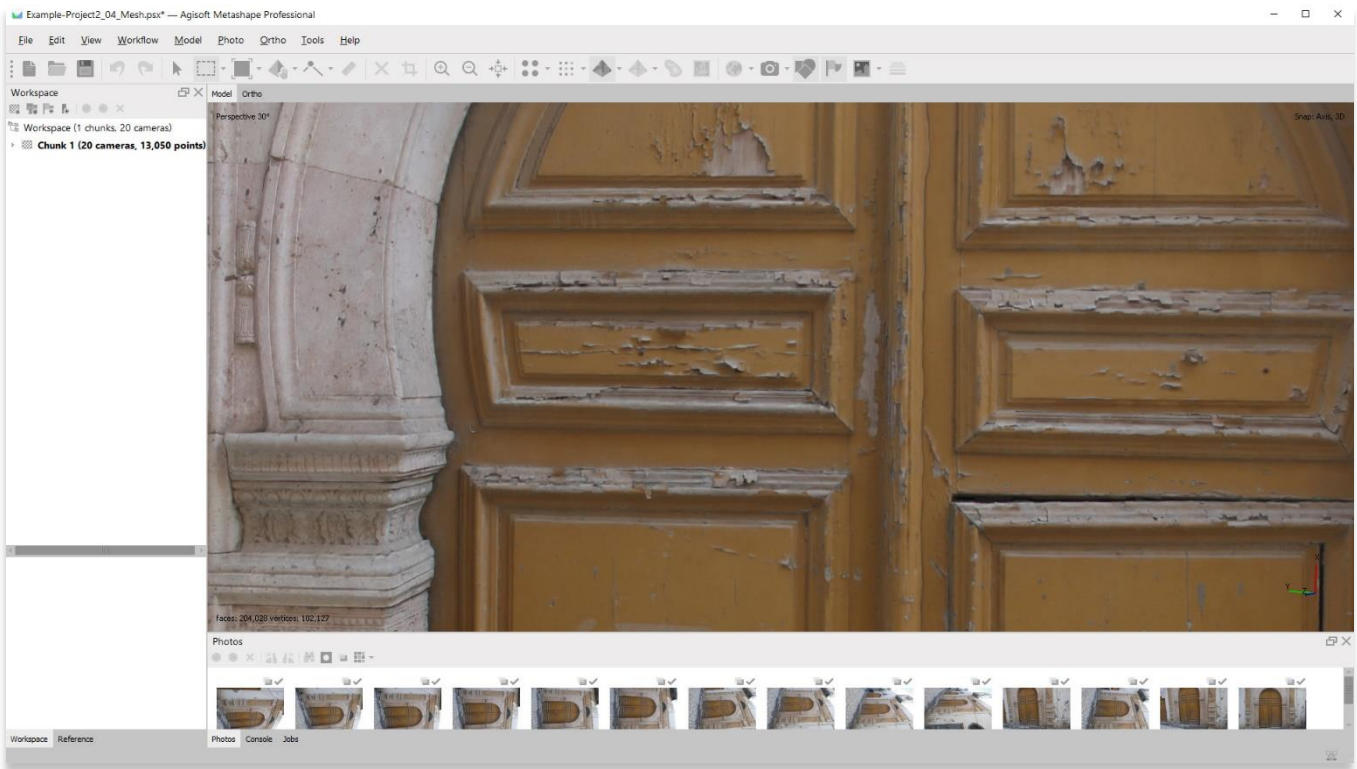
DENSE CLOUD MODEL   **TEXTURED MODEL**

7. **Save your project** before moving onto the next step in the **Workflow** menu.

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