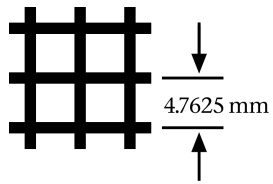
Step 1: Configure the System

1A: Select **Live Video...** from the **Measure** menu.

1B: Grid size, shape, and units must match the initial undeformed grid.



1C: To fully recalibrate the system:

- Use a flat, undeformed grid.
- Measure the grid using steps 2 through step 5A.
- Select **Calibrate** from the **Measure** menu.

Step 2: Acquire Photograph

2A: Make sure that the measurement area is fully visible and in focus on the computer screen.

- If the distance between the part and the camera has changed, the system must be recalibrated as in step 1C.

2B: Adjust lighting to avoid glare and dark areas.

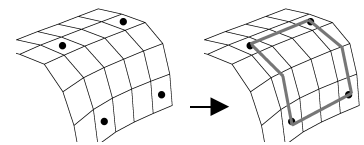
2C: Select **Take Photograph**.

2D: Close the **Live Video** dialog.

Step 3: Identify the Measurement Area

3A: Choose **Select** from the **Edit** menu.

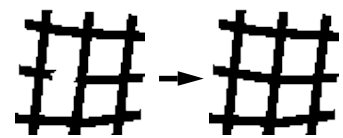
3B: Outline the border of the measurement area. Keep only whole squares or circles, including extending lines.



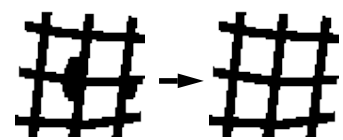
3C: Choose **Trim** from the **Edit** menu.

Step 4: Edit the Image

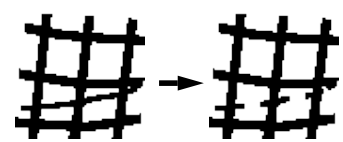
4A: Connect all broken grid lines.



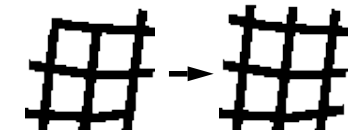
4B: Remove dark areas at grid intersections.



4C: Break all lines which are not grid connections.

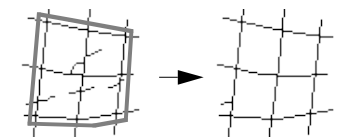


4D: Extend lines on the outside of grid intersections.

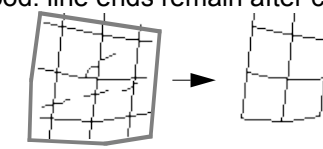


4E: Select **Thin** from the **Measure** menu.

4F: Using **Select**, outline the border of the measurement leaving line ends outside the boundary.



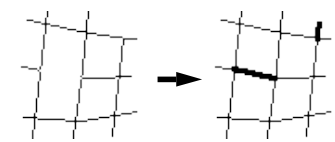
Good: line ends remain after cleaning



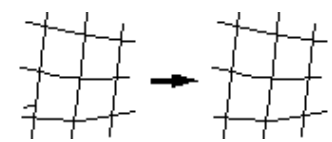
Poor: line ends removed by cleaning

4G: Select **Clean** from the **Measure** menu.

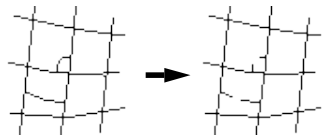
4H: Draw missing lines and line ends. After drawing repeat step 4E.



4I: Remove extra line ends.



4J: Break loops and lines that are not grid connections. Repeat steps 4E through 4I.



4K: Repeat steps 4A through 4J for each photograph.

Step 5: Map the Image

5A: Select **Map Grid** from the **Measure** menu. The computer will automatically map the grid.

5B: To view the mapped mesh, select **Identify Grid** from the **Measure** menu. To return to edit mode select **Identify Grid** again.

5C: If the mapped mesh does not match the grid pattern, repeat steps 4E through 4J.

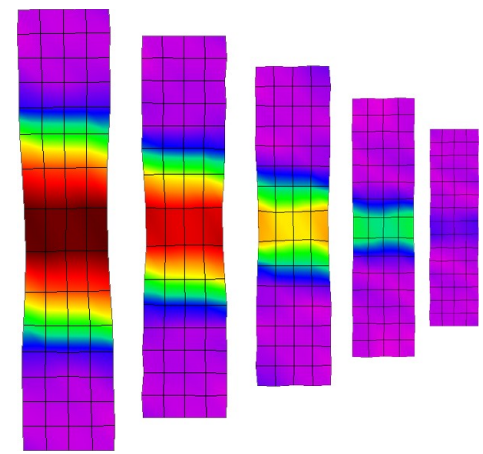
Step 6: Finishing the Measurement

6A: Select **Measure** from the **Measure** menu. All photographs currently open will be used to calculate the measurement.

6B: The measurement is complete. A geometry window will automatically open with the results.

Measurement Reference Card
Version 4.1

ASAME 2D Model



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