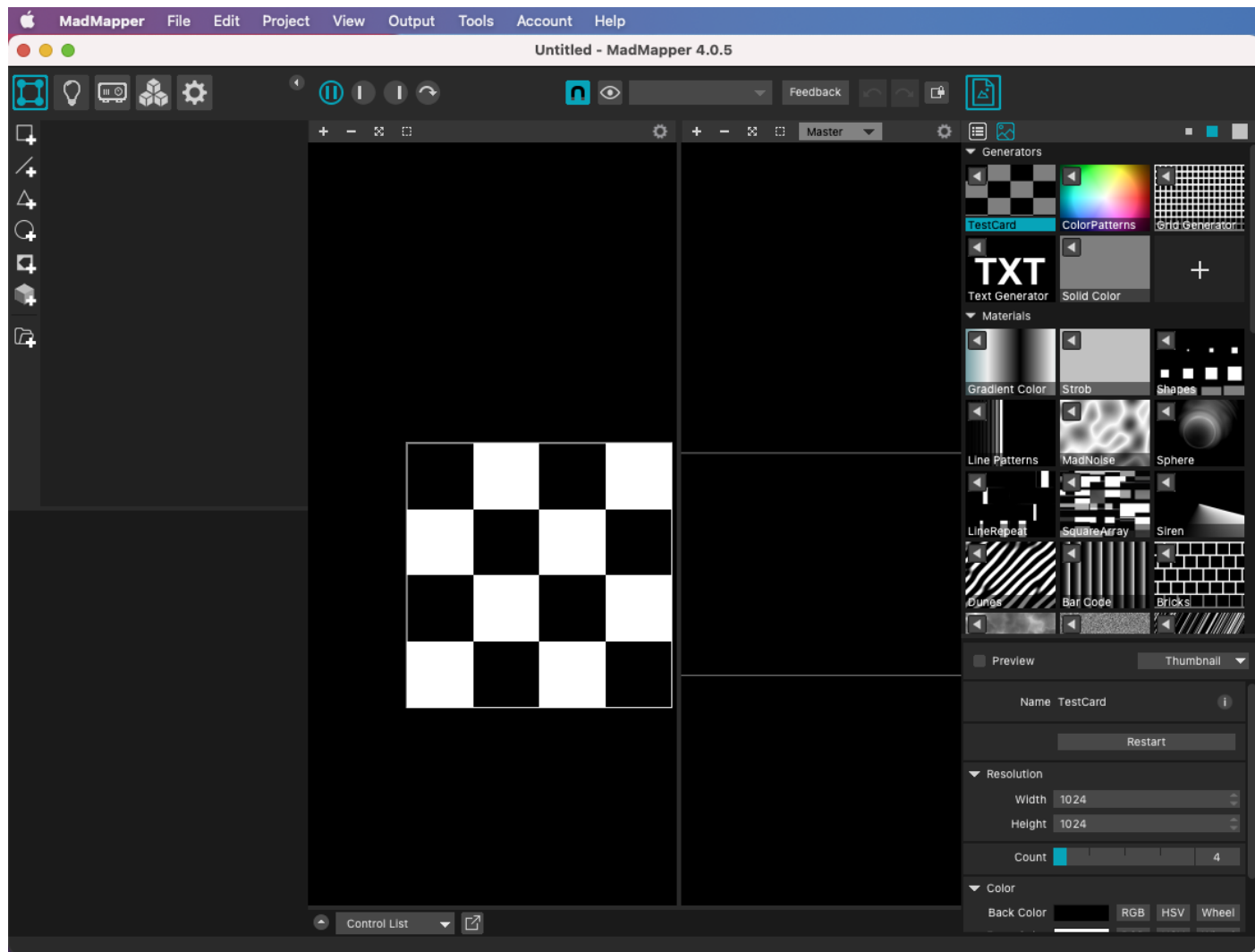# MadMapper Setup & Walk Through
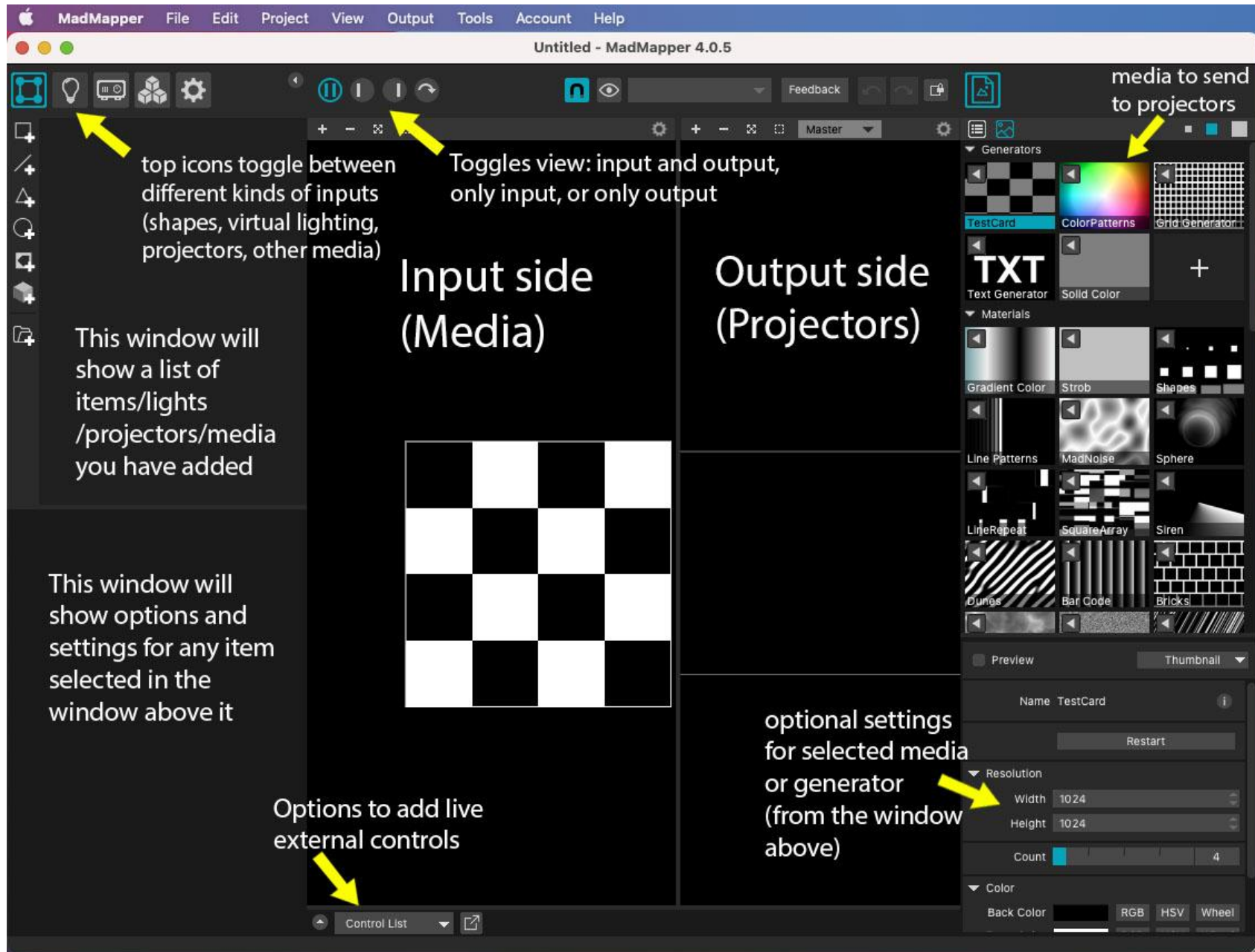
Bring an external drive to save your project before you leave ARTSLab. On the desktop, create a folder with your name and date and copy any media that you will be using into that folder. When you save your project, save your file to this local desktop folder. However, before you leave, copy the <u>entire folder</u> onto your personal drive.

Before you open MadMapper, connect at least one projector to your computer. Adjust your projector focus and projection area before working in MadMapper. In your computer's display settings, turn off desktop mirroring, and make sure your primary desktop is your computer monitor.

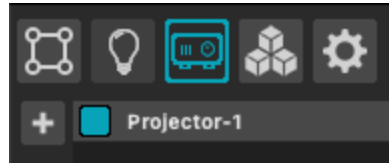When you open MadMapper, your default screen will look something like this:

This is the general layout of the windows and basic functions:

This is the general layout of the windows and basic functions:

MadMapper File Edit Project View Output Tools Account Help

Untitled - MadMapper 4.0.5

top icons toggle between different kinds of inputs (shapes, virtual lighting, projectors, other media)

Toggles view: input and output, only input, or only output

media to send to projectors

This window will show a list of items/lights /projectors/media you have added

Input side (Media)

Output side (Projectors)

Generators

TestCard   ColorPatterns   Grid Generator

TXT
Text Generator   Solid Color

Materials

Gradient Color   Strob   Shapes

Line Patterns   MadNoise   Sphere

LineRepeat   SquareArray   Siren

Dunes   Bar Code   Bricks

This window will show options and settings for any item selected in the window above it

optional settings for selected media or generator (from the window above)

Preview   Thumbnail

Name TestCard

Restart

Resolution
Width 1024
Height 1024

Count 4

Color

Back Color   RGB HSV Wheel

Options to add live external controls

Control List

Step1: Add your Projectors

Go to the top left corner and click the projector icon:
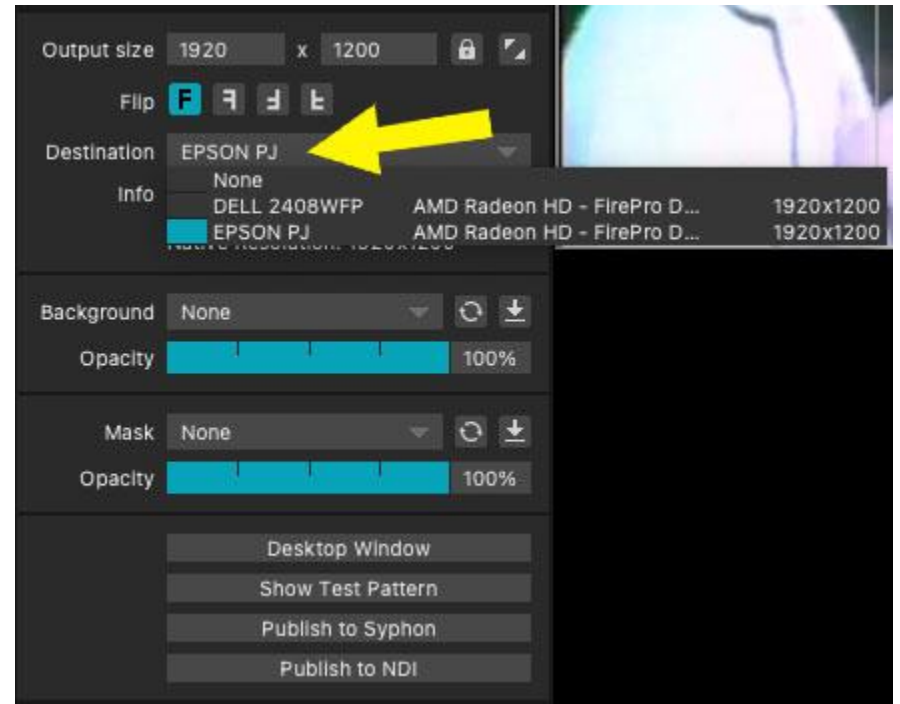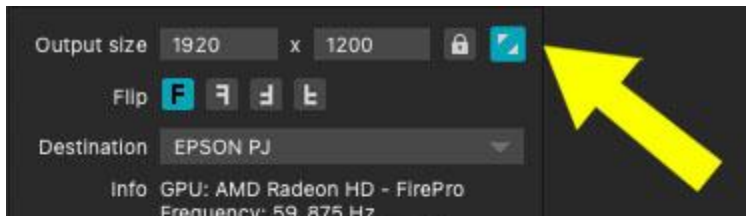

You will find "Projector-1" already in your project. If not, click the "+" to add a new projector.

Click "Projector-1," which will bring up its settings in the window directly underneath the projector list.

Look for "Destination" and use the pull down menu to select your projector.

Click the double arrow next to "Output size" to detect the correct resolution of your projector.


Click "Show Test Pattern"

In the toolbar at the top of the screen, go to Output and select "Full Screen Mode". If your projector is not displaying the test pattern, make sure your projector is on, connected, and that your display is not set to mirror
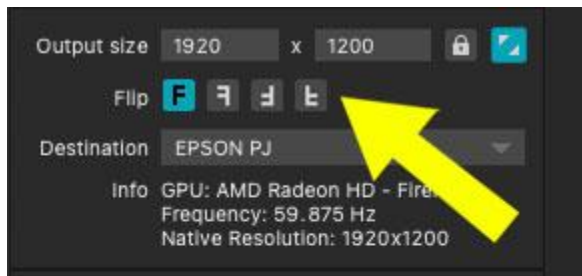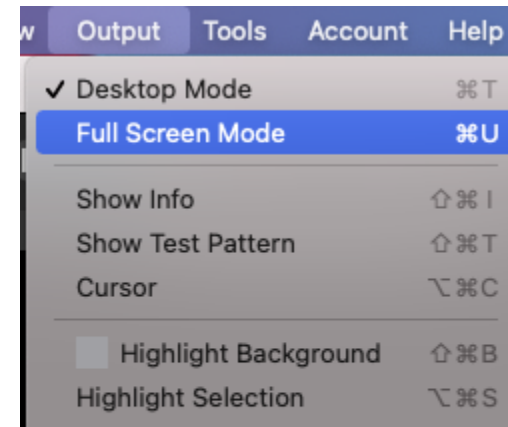
When the MadMapper test pattern is being used, you can see the edges of the projector and also see if the Projector needs to be adjusted. If the image needs to be flipped, you can correct it using the flip options.

Click "Show Test Pattern" again to return to normal projection mode.
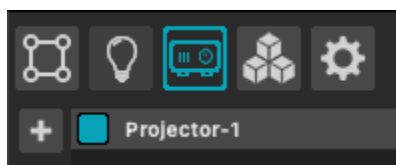
Repeat the add projector steps for any additional projectors you are using. Keep in mind that each projector's "canvas" will by default appear in the same place on the screen (stacked rather than side by side). You can arrange their location on the screen by simply clicking and dragging them as you add them. This is recommended so that it's not visually confusing when you begin mapping.
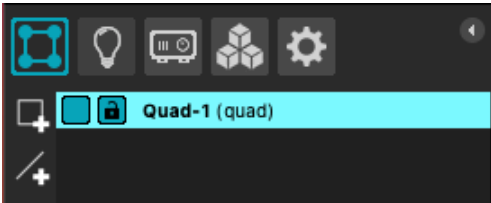
Step 2: Add shapes and media

In the top left corner, select the square icon to get into build mode, and click the (||) icon to make sure both your input and output displays are showing on your screen.

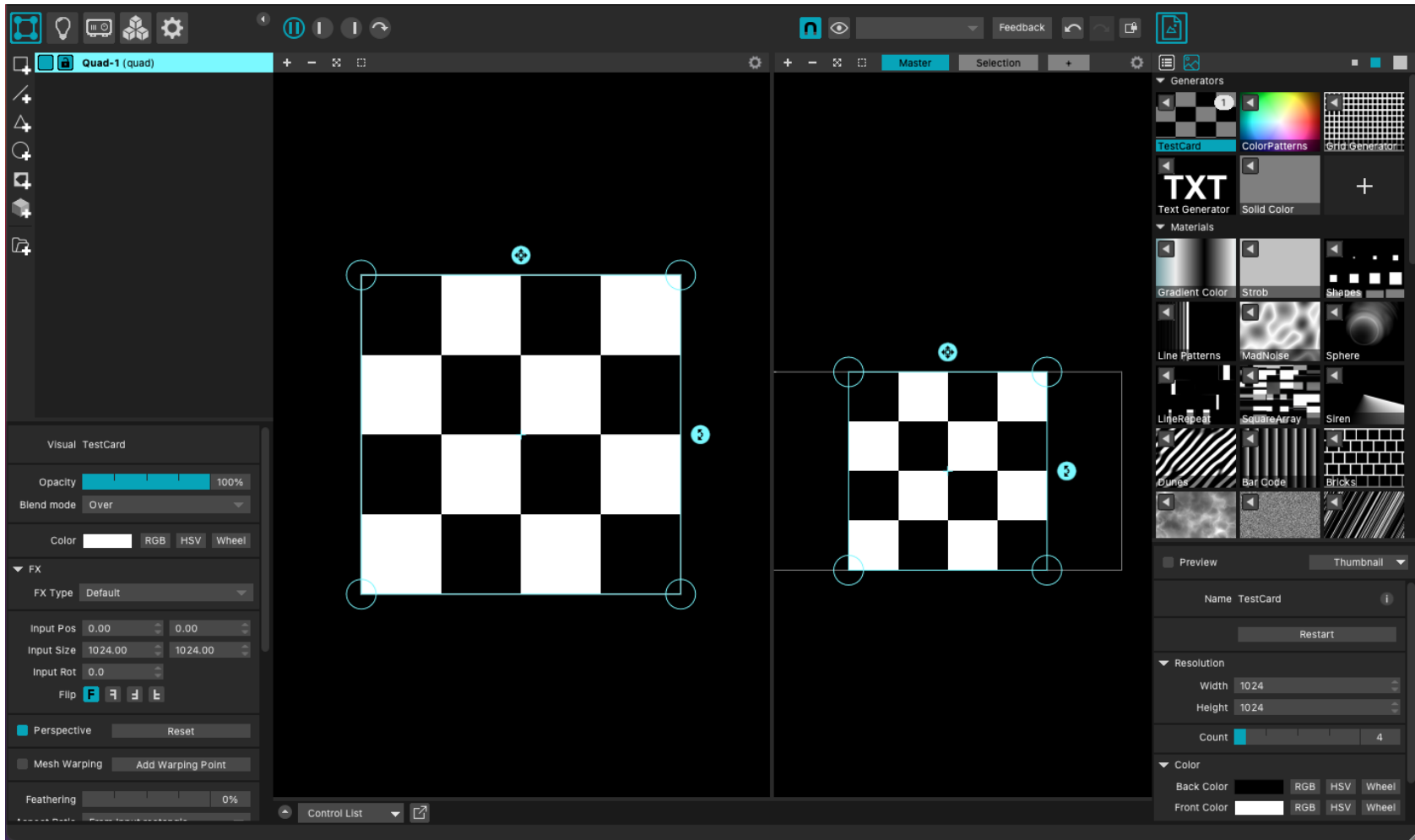Take a moment to review the screen layout for this mode:
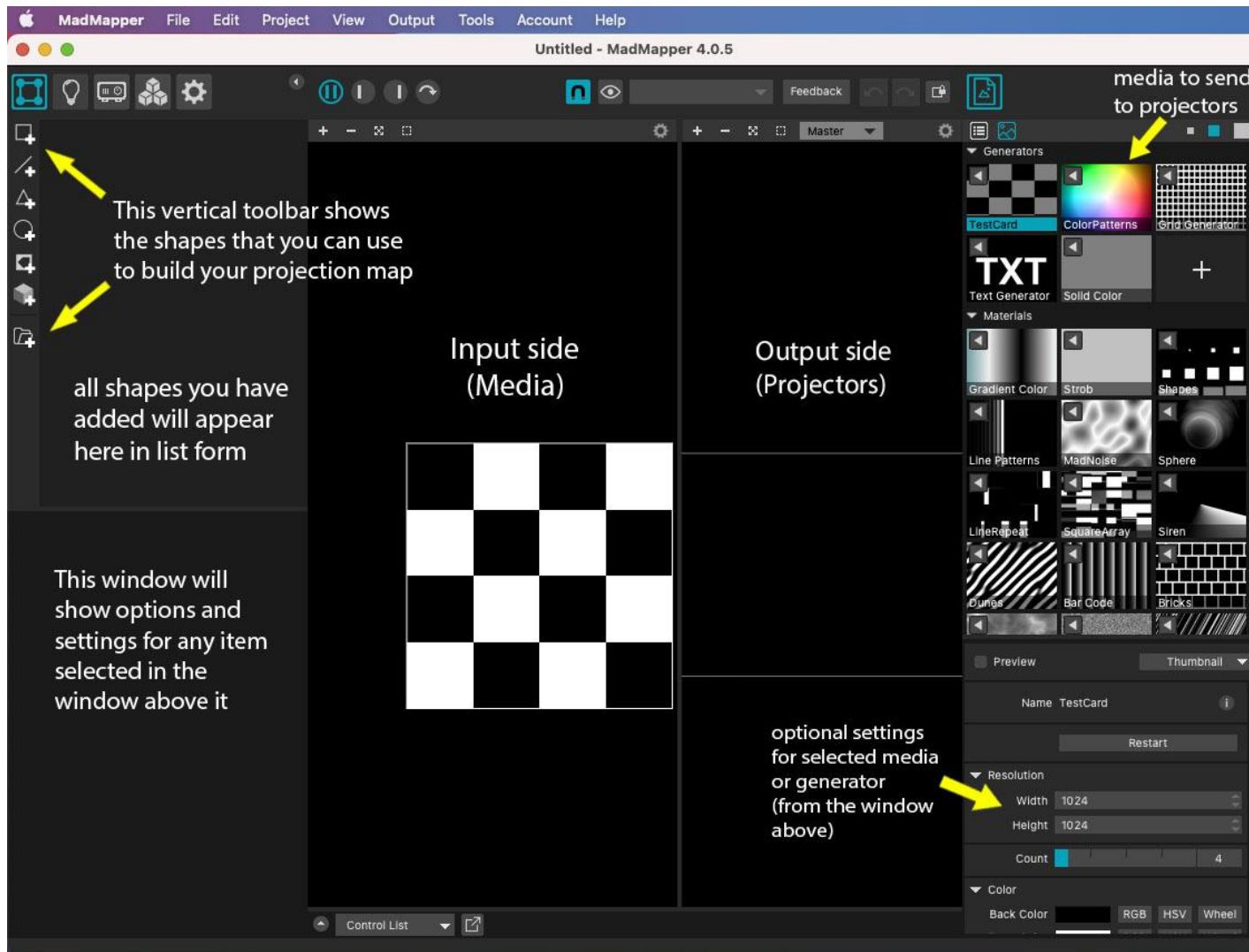
Start by adding a *quad.* Click the "☐+" icon at the top of the left hand toolbar:

"Quad-1" will appear in the list (you can rename this by double clicking the text)

You will also see a square outline in light blue (the quad you added) in both the input and output sides.

Now let's send some media to your quad and work on adjusting the projection output.

On the right hand side of the screen is a list of video media to choose from, starting with "Generators."

All of the video generators in MadMapper have the ability to scale losslessly. The settings and parameters of each can be adjusted (parameter settings appear in a window directly below).

"Solid Color" is a good option to use when you're trying to accurately block out the edges of your projection map. Select Solid Color and using the settings in the window below, change it to a bright color, like yellow.

With your quad selected, click the ◄(left facing arrow) in the top left corner of the thumbnail to send it to that quad.
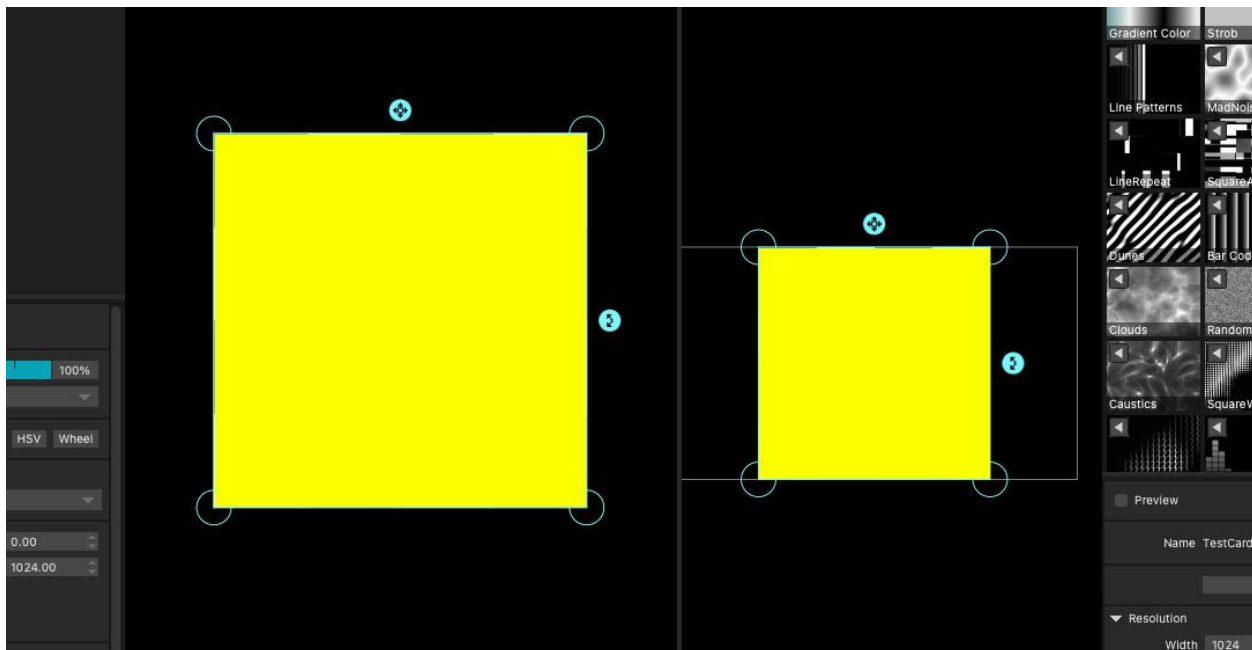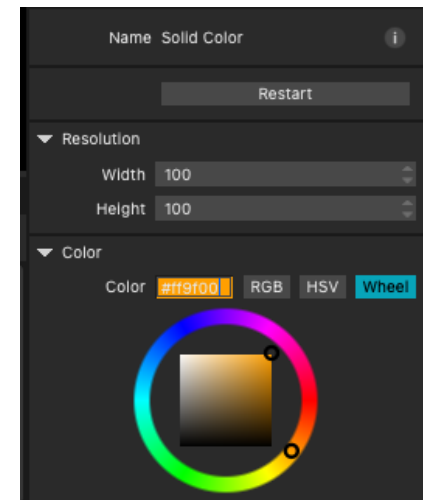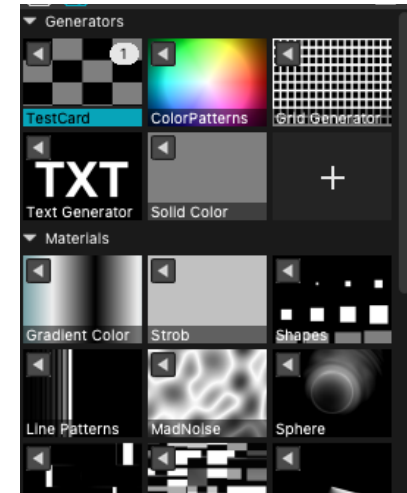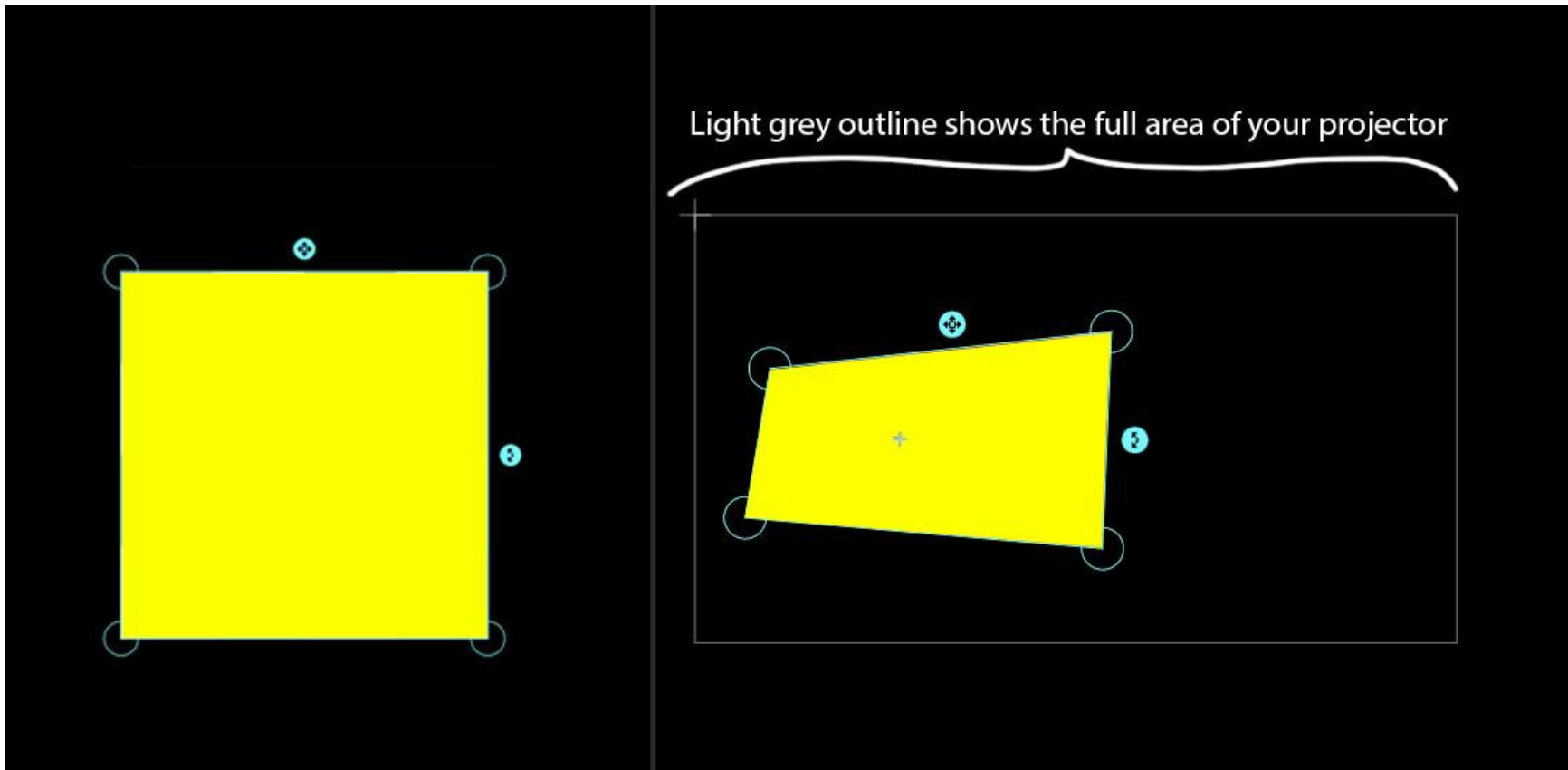
Step 3: Adjust the projection map

Try adjusting the corners of your quad by clicking and dragging the outlined blue circles.

Adjust the corners and position of the quad on the OUTPUT side to adjust the physical projection.

Tip: Using the mouse scroll wheel, zoom into the output side in order to make fine adjustments.
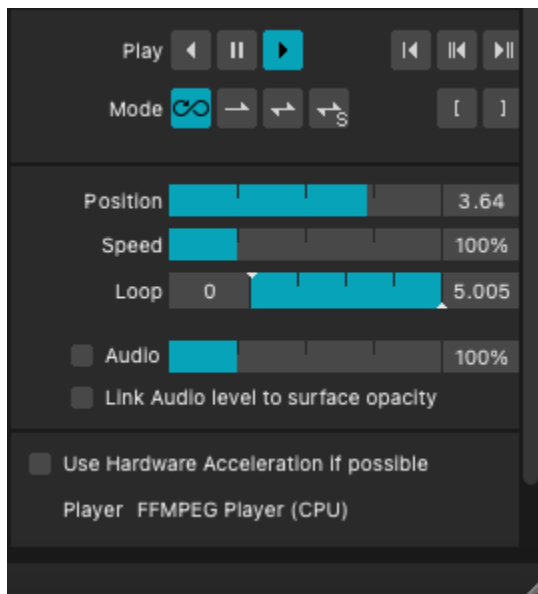
Now let's import your own media

Scroll down to where you'll see "Images" and "Movies." Click the plus (+) to bring up a dialog box to load your files. If a file is grayed out or not visible, it is likely in a format that MadMapper does not recognize.

With your quad selected, click the ◄(left facing arrow) in the top left corner of the thumbnail to send it to that quad.
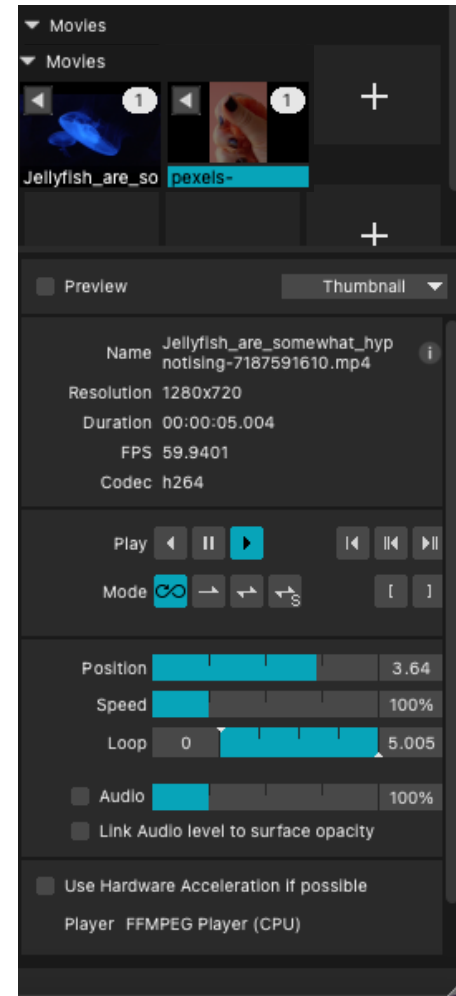

In the dialog box below you will see settings for your video. You can set the media to loop, play once and stop, or jog back and forth.
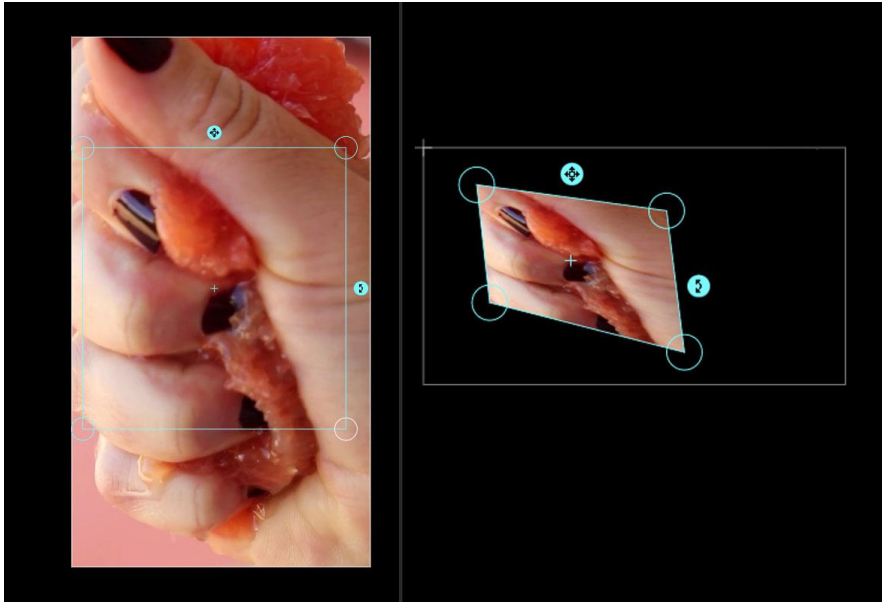
Adjust Position if you want to change the starting or end point.

Speed changes the playback speed.

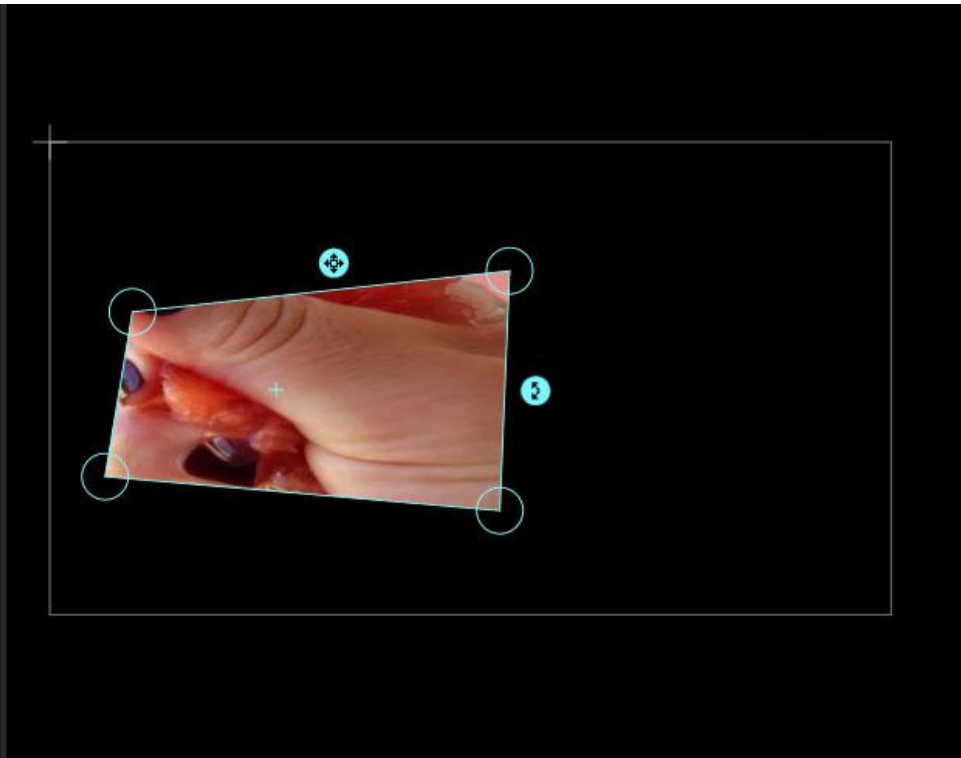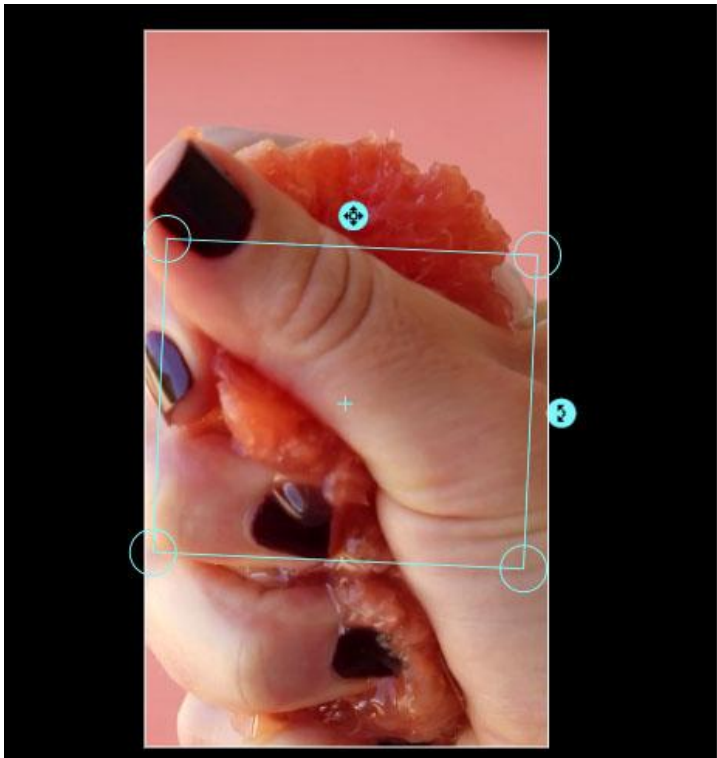Loop allows you to indicate a finite number of playback loops.
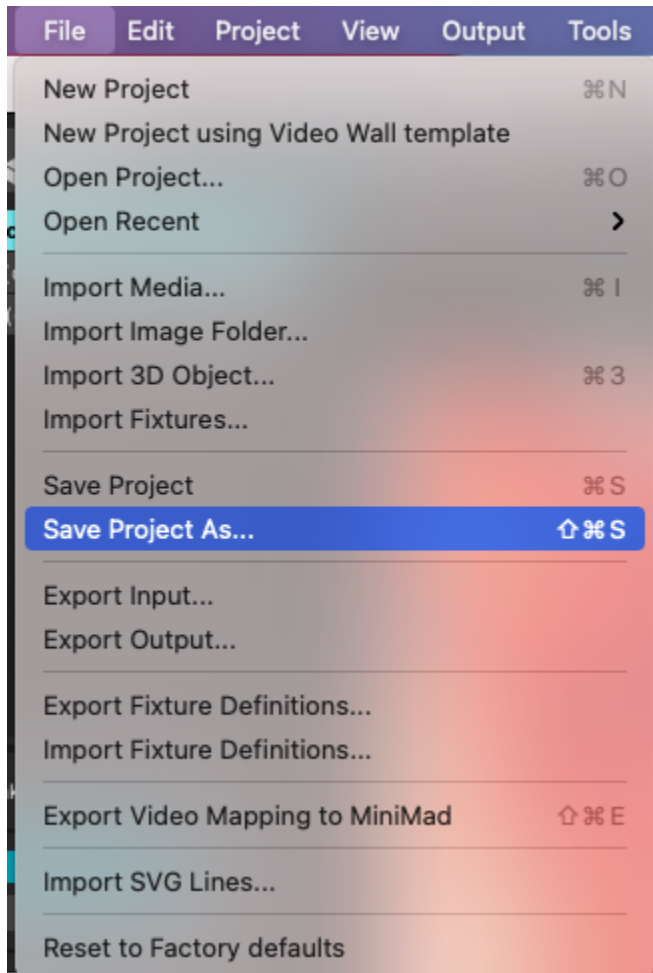
Audio adjusts the output volume.

Now adjust the corners and position of the quad on the INPUT side and take notice of its effect on the output side.

You'll see that adjusting shapes on the input side changes the selected area of the media that will be projected.

Step 4: Save Your Project

At this point you've connected your projector, added at least one quad, and added some of your own media. This is a great time to save your work.

File	Edit	Project	View	Output	Tools

New Project	⌘N
New Project using Video Wall template	
Open Project...	⌘O
Open Recent	>
Import Media...	⌘I
Import Image Folder...	
Import 3D Object...	⌘3
Import Fixtures...	
Save Project	⌘S
Save Project As...	⇧⌘S
Export Input...	
Export Output...	
Export Fixture Definitions...	
Import Fixture Definitions...	
Export Video Mapping to MiniMad	⇧⌘E
Import SVG Lines...	
Reset to Factory defaults	

Under File, select Save Project As. For location, choose the folder on the desktop with your name (you should have set this up at the beginning of your session).

As you continue to make adjustments to your map, remember to save your work often.

Before you leave be sure to copy all of your media back on to your personal external drive!

Step 5: Refining your map

There are a few ways to refine your map.

The first method we will explore is Mesh Warping. This allows additional points that can be adjusted along your shapes' outline for a more custom map.

With the quad selected that you would like to adjust, click the box next to the option called Mesh Warping (you will find Mesh Warping on the left hand side of the screen, below the list of quads and other shapes).

Click on "Generate Grid." To start, enter 2 for both the Horizontal and Vertical Subdivisions. You can enter more for more complicated shapes, but let's start with 2.

You will notice that your quad on the projector side will now show a 2x2 grid with additional circles now along the sides. Click and drag these circles to see how this changes the shape of your quad.
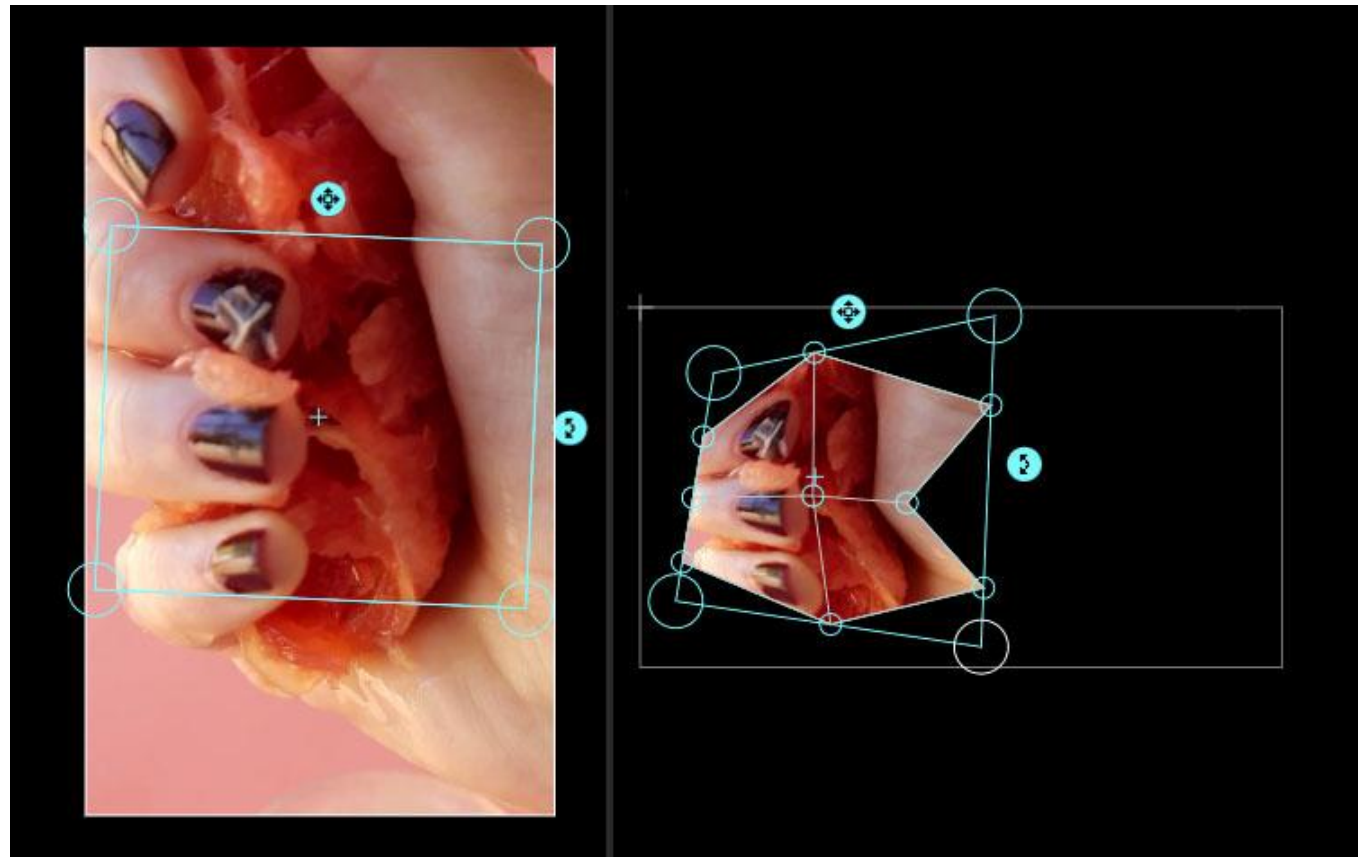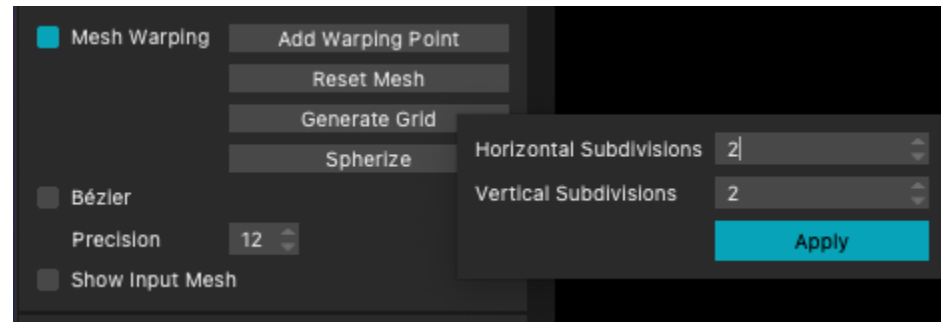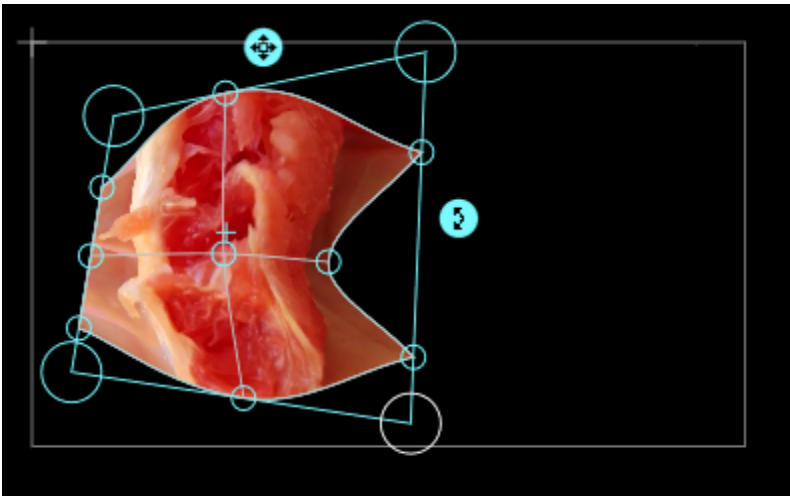
If you have a curved object, you may want to add bezier curves.

This will create smooth curves, which are adjusted by using the handles that appear on each control point.
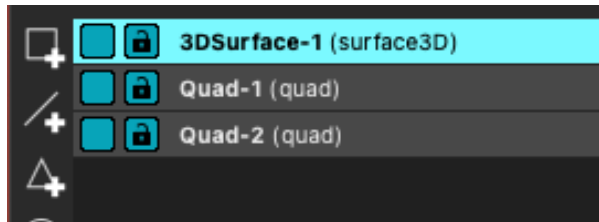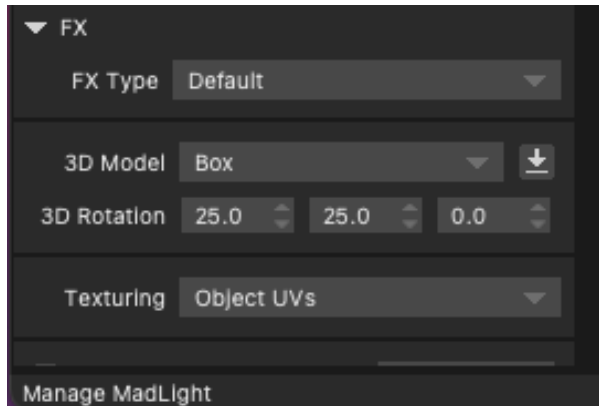
Without bezier:
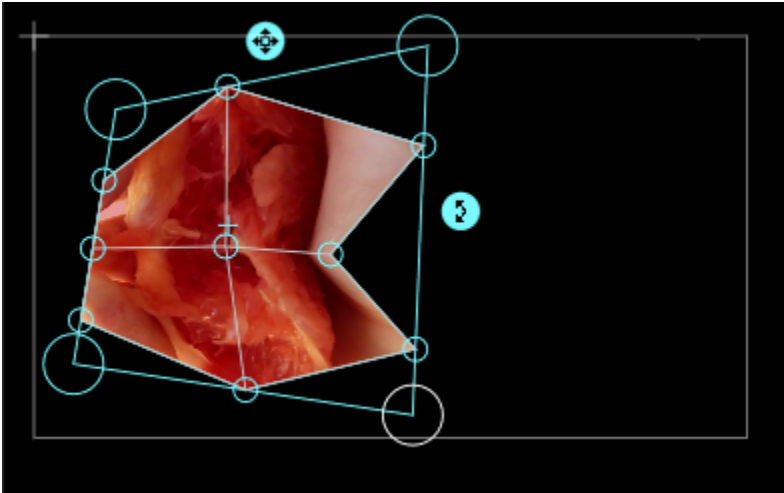
With bezier:

If you are mapping onto a 3D object, another method to explore to refine your map is by using 3D shapes.

To begin using 3D shapes, set up a cube within your projection space and click the cube + icon:

You'll see "3DSurface-1" appear in your shapes list.

Below you will see some options for your 3D model.

The default 3D shape is a cube. Choose the drop-down menu to browse other available shapes, or to upload your own .obj file.

Click on Manage MadLight in order to add 3D lighting effects (ie, a virtual light casting shadows).

For the purpose of this guide we'll only look at the cube shape:

On the Projector side (right) of your screen you will see a cube added to the projection map. You can adjust the rotation, location, and scale of the projected cube by hovering over the shape and clicking and dragging using the mouse.

On the Input side you'll see a rectangle with six squares inside. These squares show the portion of the image being mapped for each side of the cube. Just like with a conventional quad, you can adjust the imagery on the cube by adjusting the corners, location, and rotation of the input shape.