

Slide Mounting For Projection 101

By

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for the NSA 2005 Convention

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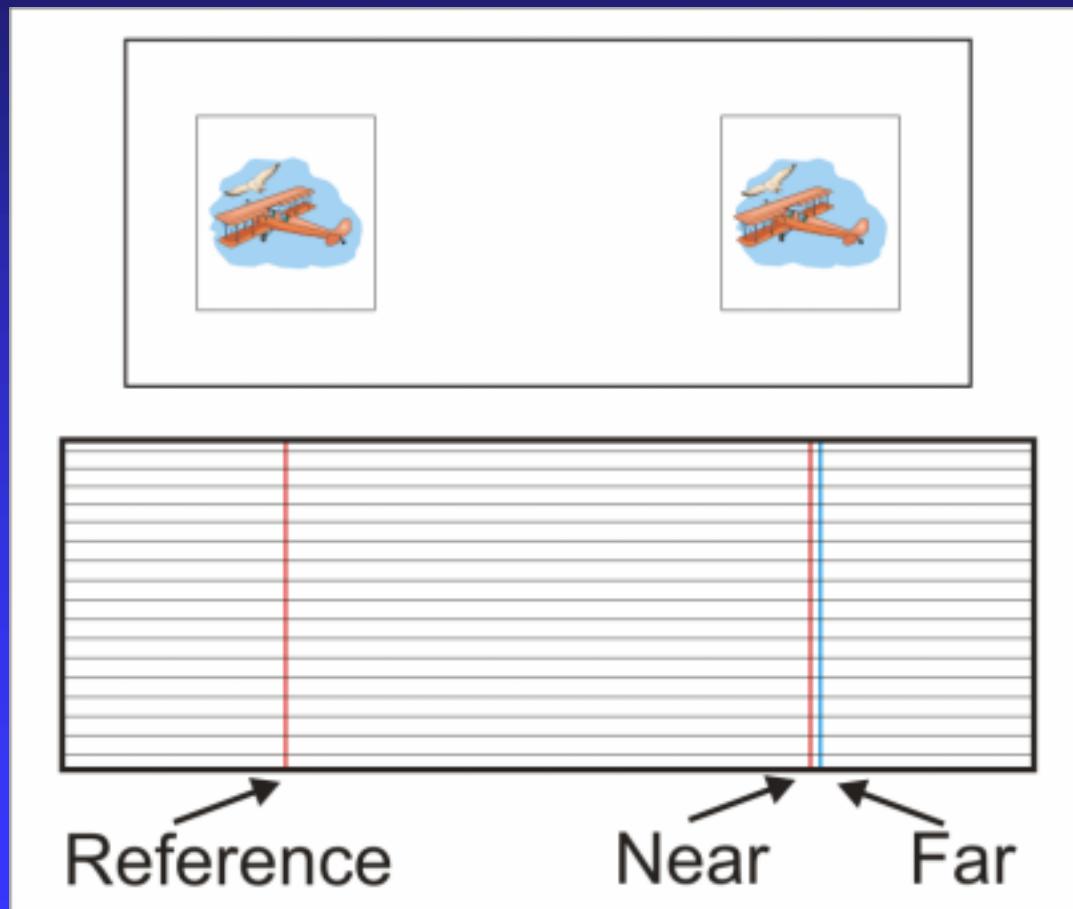
The problem

- Many people shoot 3D but never project their slides
- Slides that look good in a viewer may look awful when projected
- Not all mounts work well in a projector
- Proper mounting technique can seem very complex

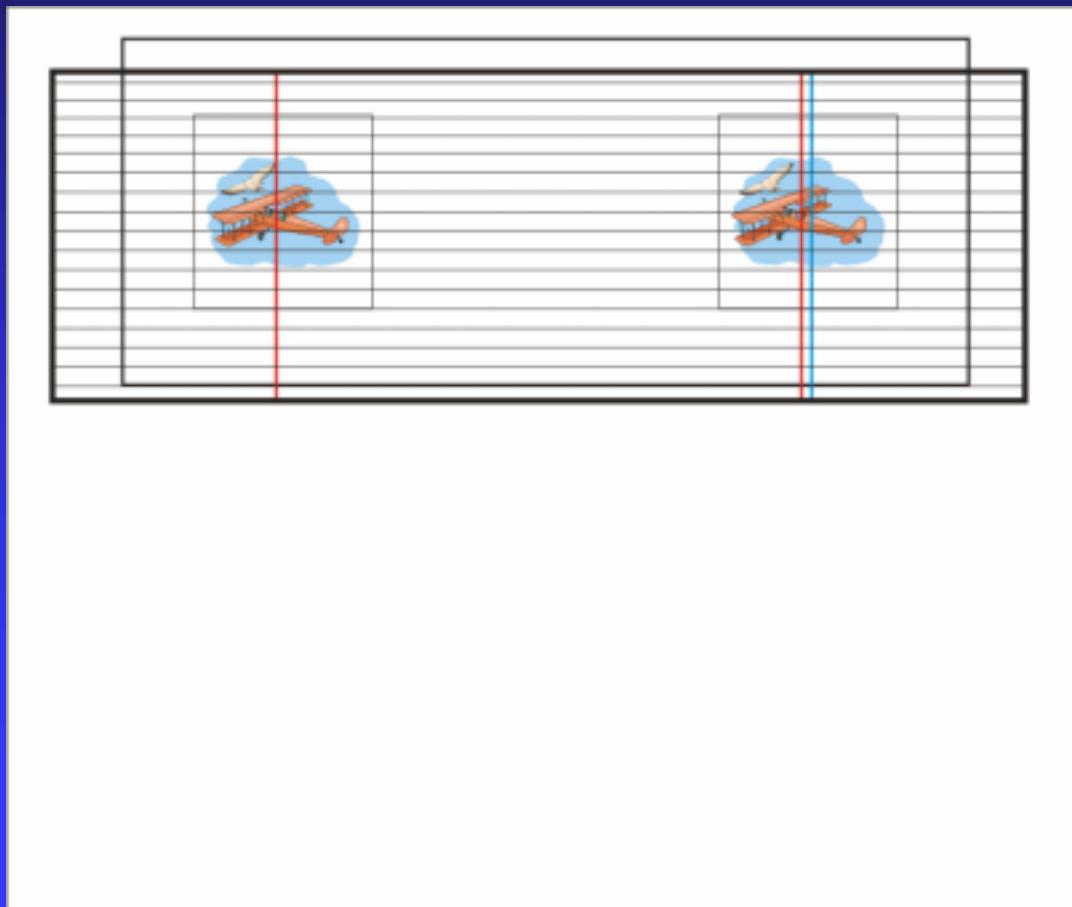
A simple but workable method

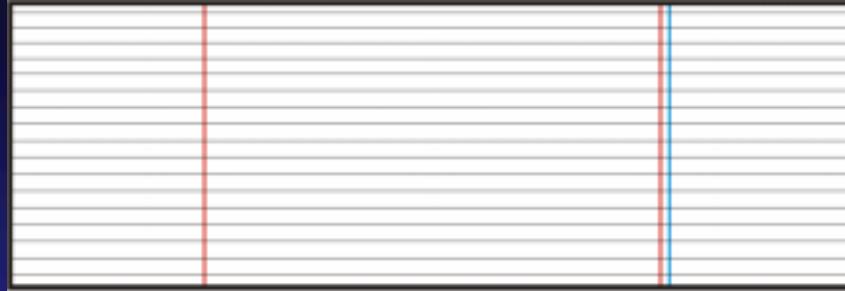
- Use a mounting gauge to set the window
- Mount conservatively
- Invest in a mounting jig
- Use RBT plastic mounts
- We will discuss setting the window first

Mounting gauge

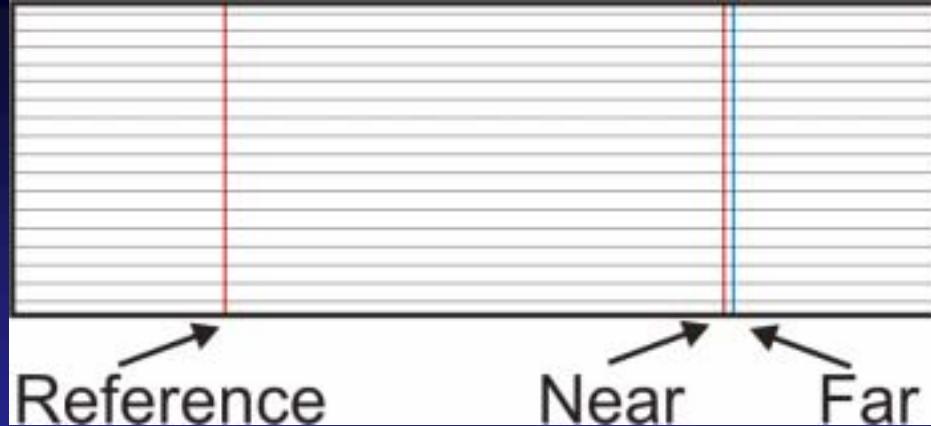


Mounting gauge





- Precision made on stable, clear film
- **Mounting gauges are specific to mounts**
- Horizontal lines are used to check for vertical / rotation errors
- Vertical lines are used to set the window



- “Reference” line is placed on a point in the left image
- If the same right image point is left of the “Near” line, it is in front of the window
- If the same right image point is right of the “Near” line, it is behind the window

Basic mounting guide lines

- The closest object in the scene should be at or behind the window
- If it's not, no part of it can touch the window edge
- The same object in both images must be at the same height
- The difference between the “closest” and “farthest” object must not exceed 1.2mm

Basic mounting guide lines

- These rules will produce projectable slides 99 percent of the time
- To get the absolute best slides you need to practice and study
- Let's look at some examples of mounting this way

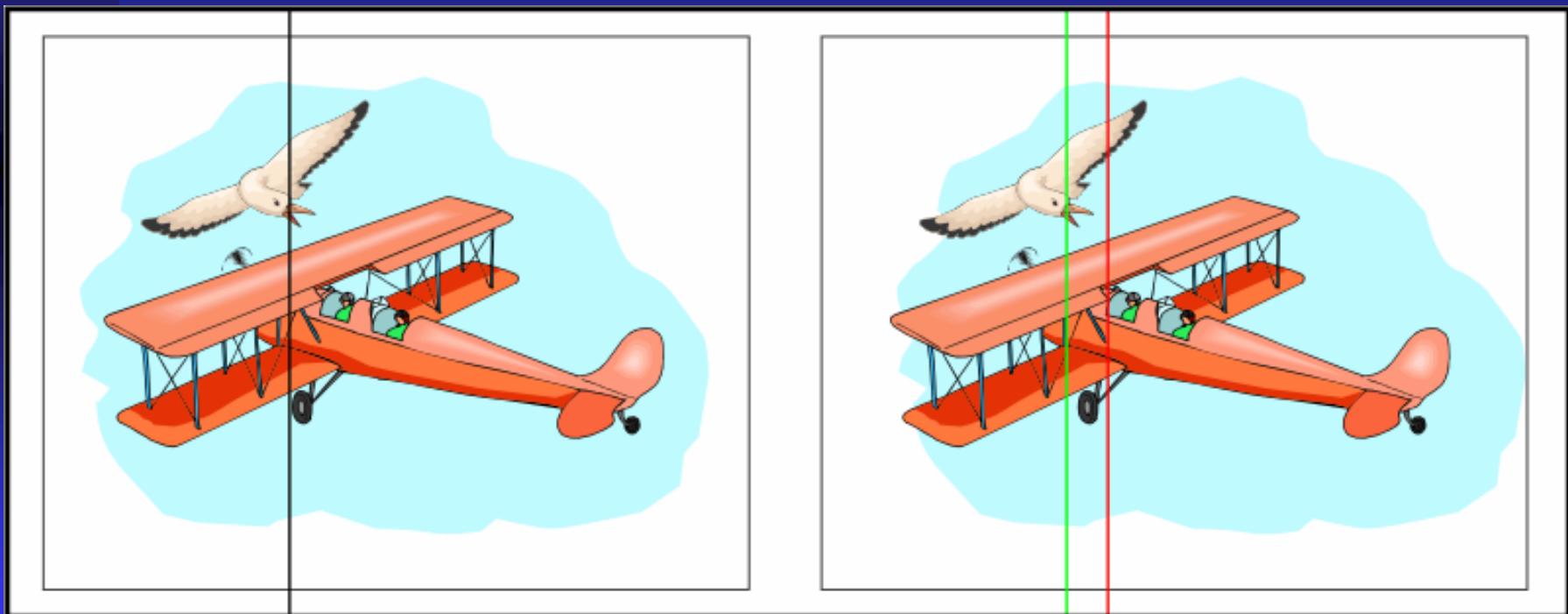
Using the alignment gauge



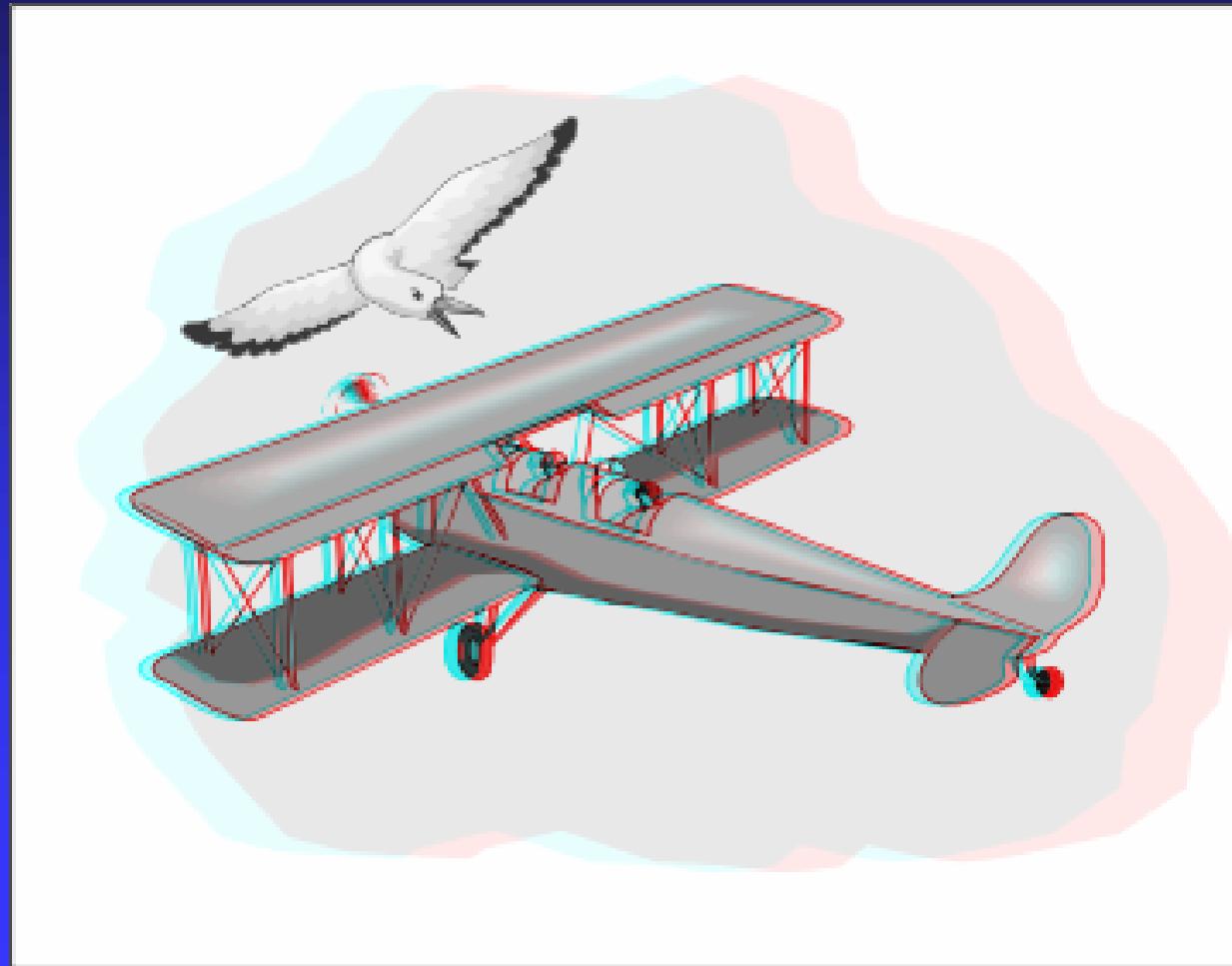
Near point set to bird

- The bird is the “closest” object in the image
- Most people will mount the closest object at the near point or “window”
- May still have problems if the far point is too distant

Near point set to bird



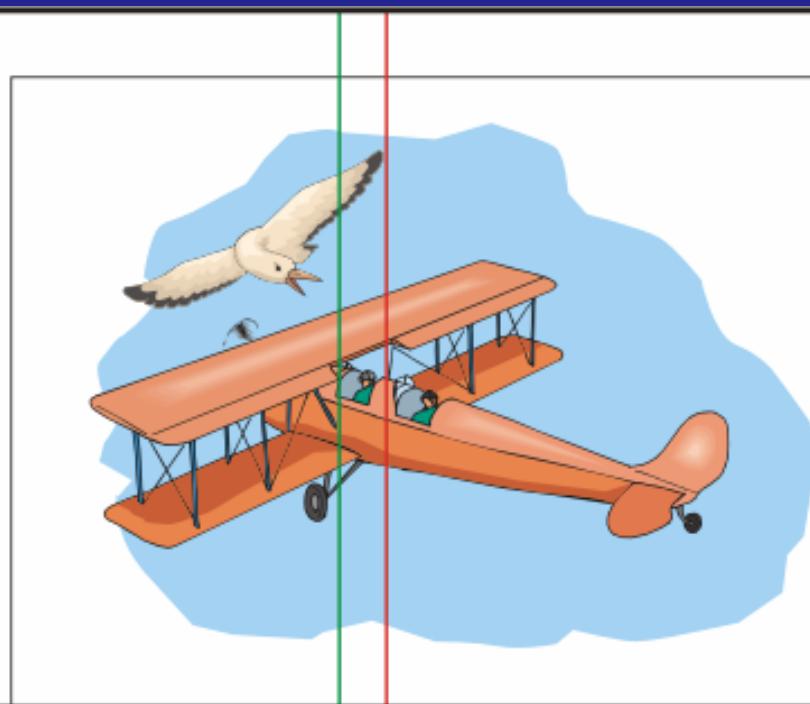
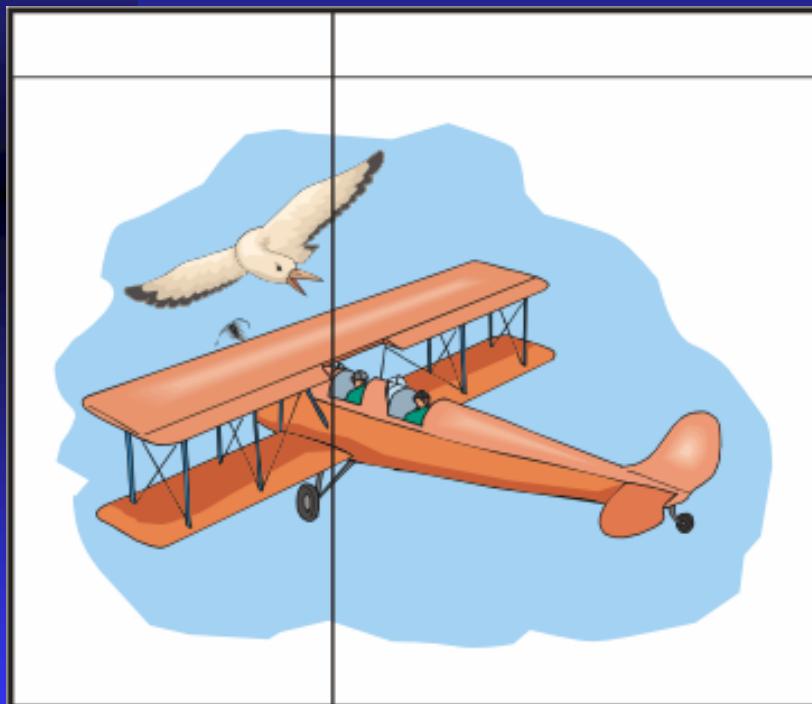
Near point set to bird



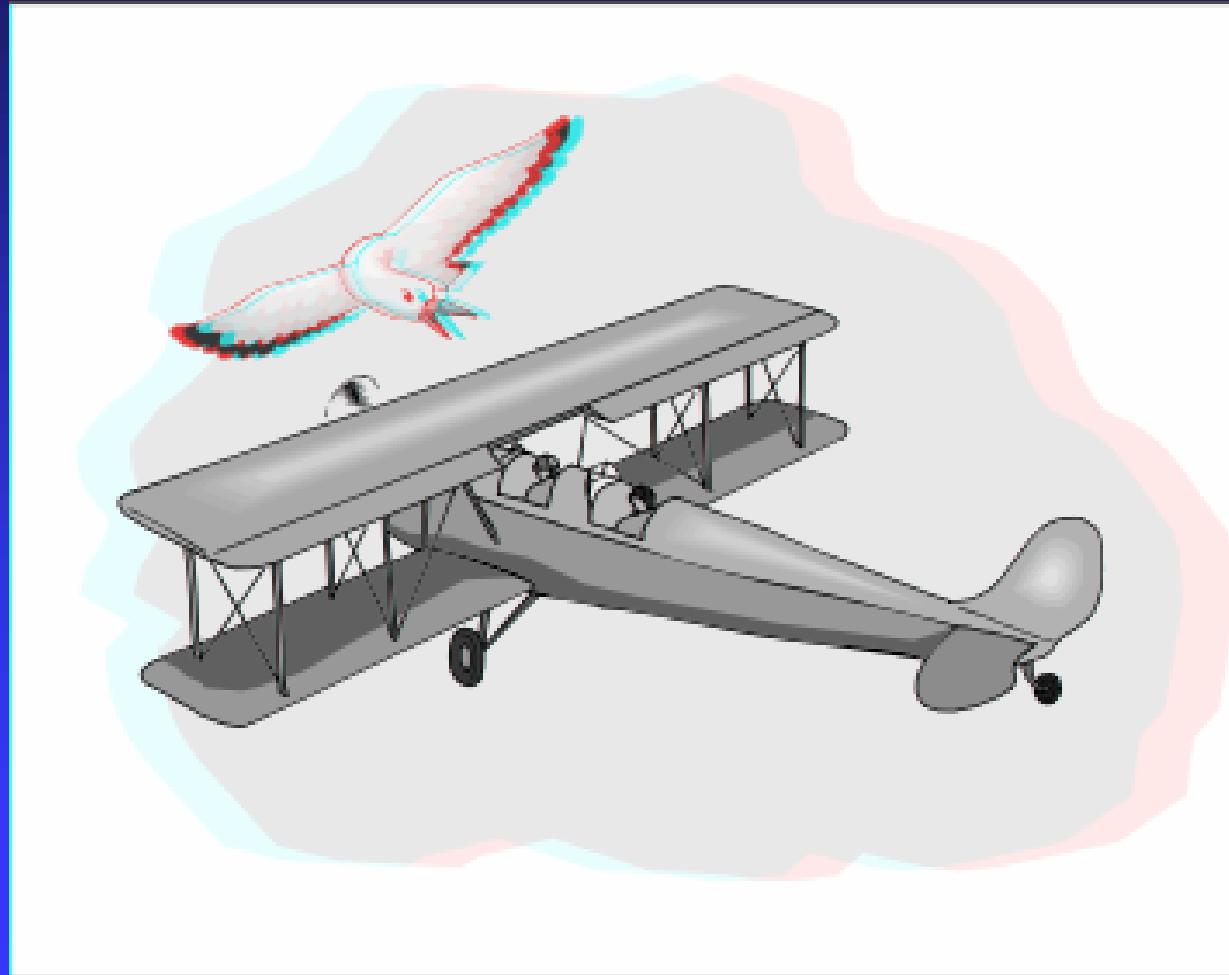
Near point set to plane

- The closest object will be “in front” of the window
- This can be effective but should be used sparingly
- Beware of objects that are cut off by the window – “window violations”

Near point set to plane



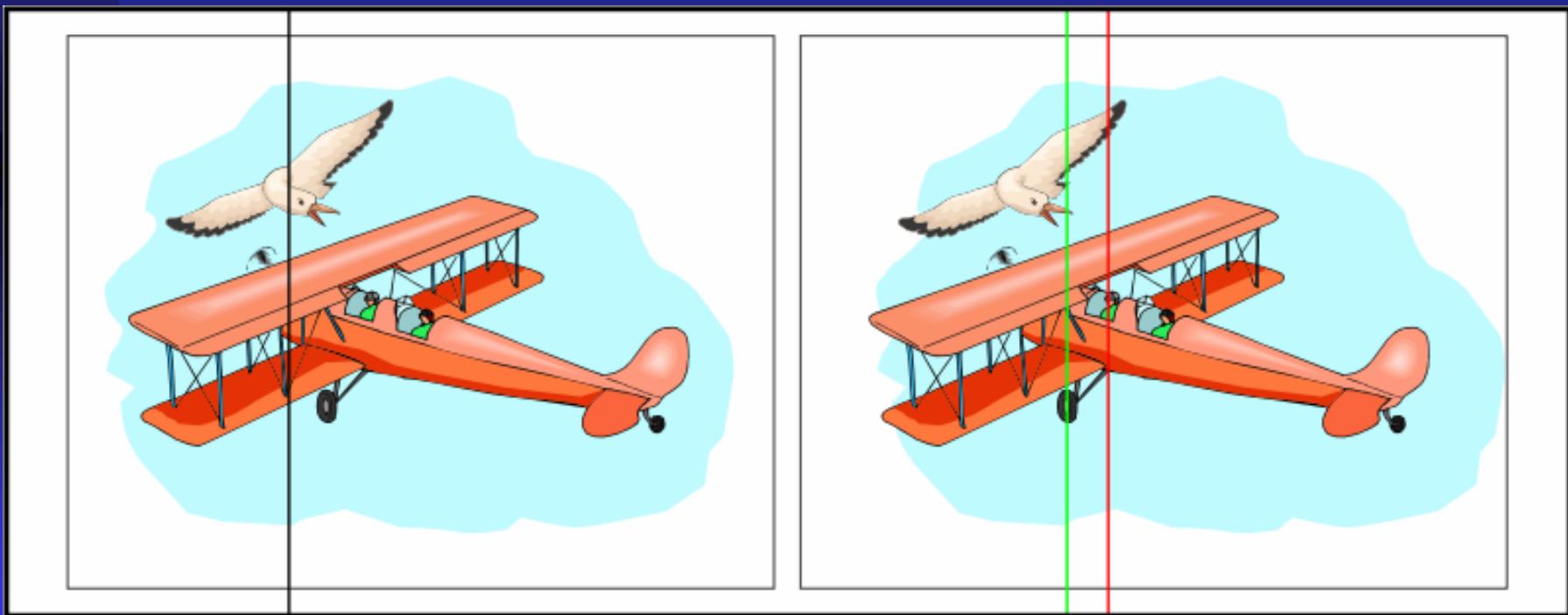
Near point set to plane



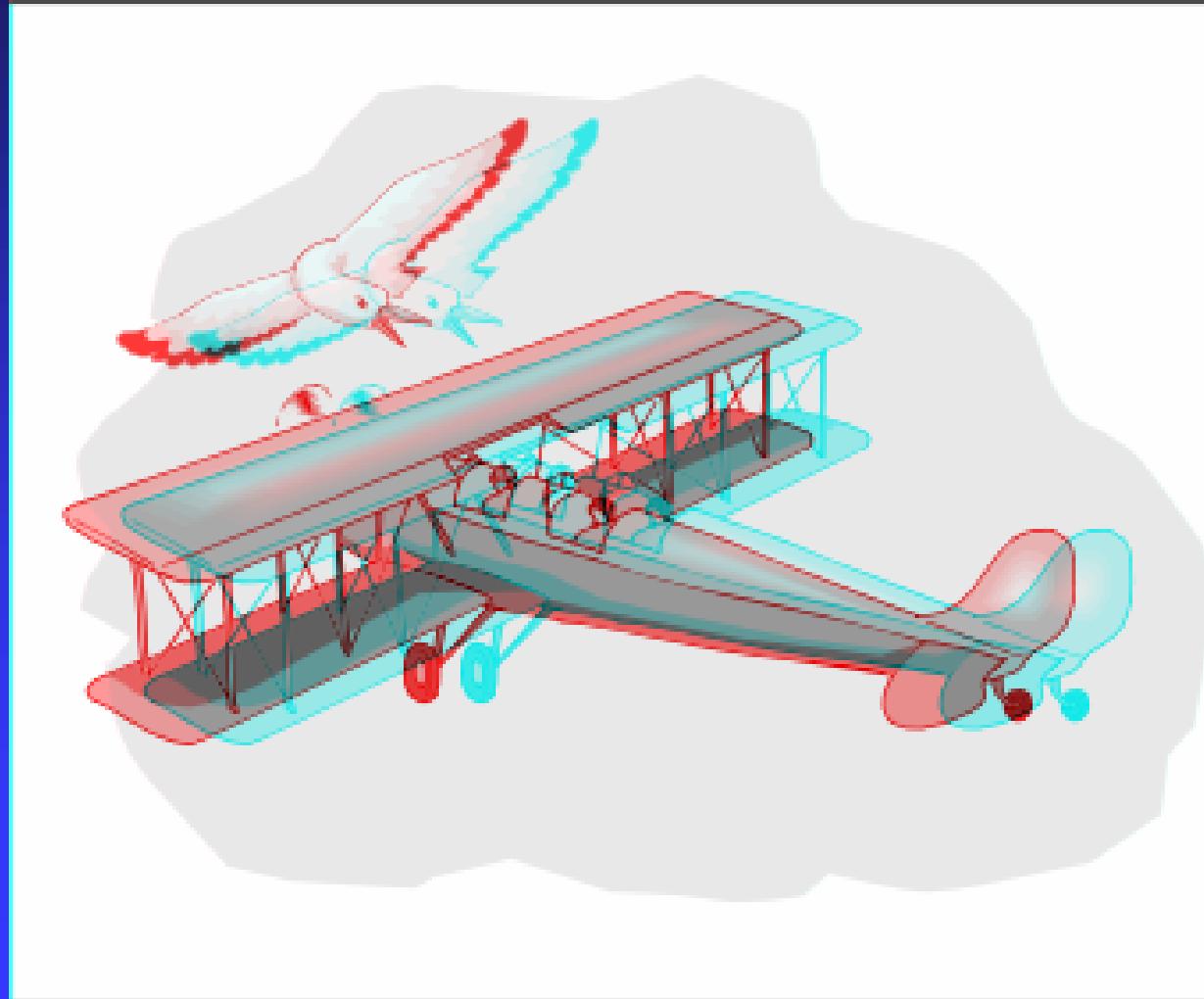
Near point set to cloud

- Everything will be in front of the window
- Going to extremes seldom works
- Image is hard to see in stereo

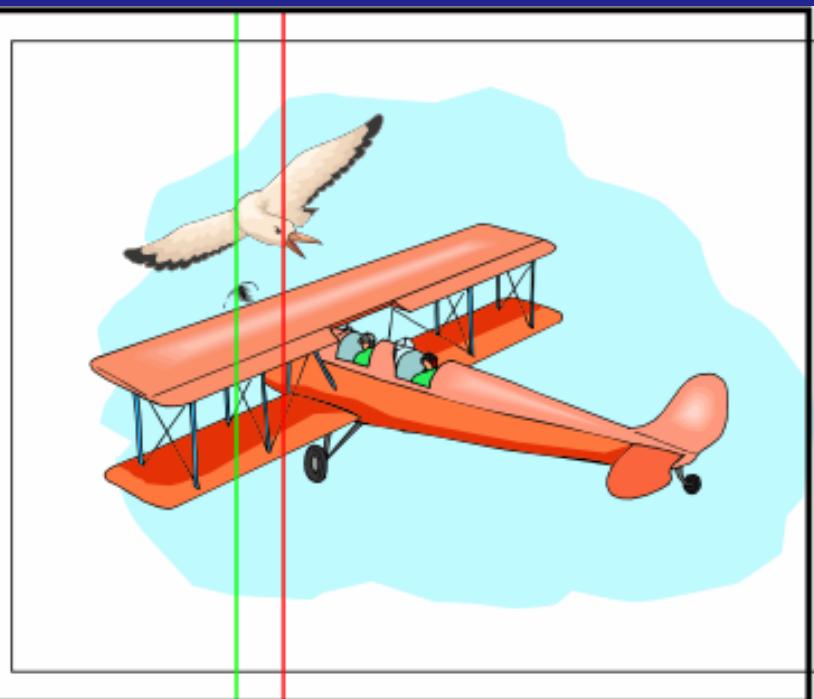
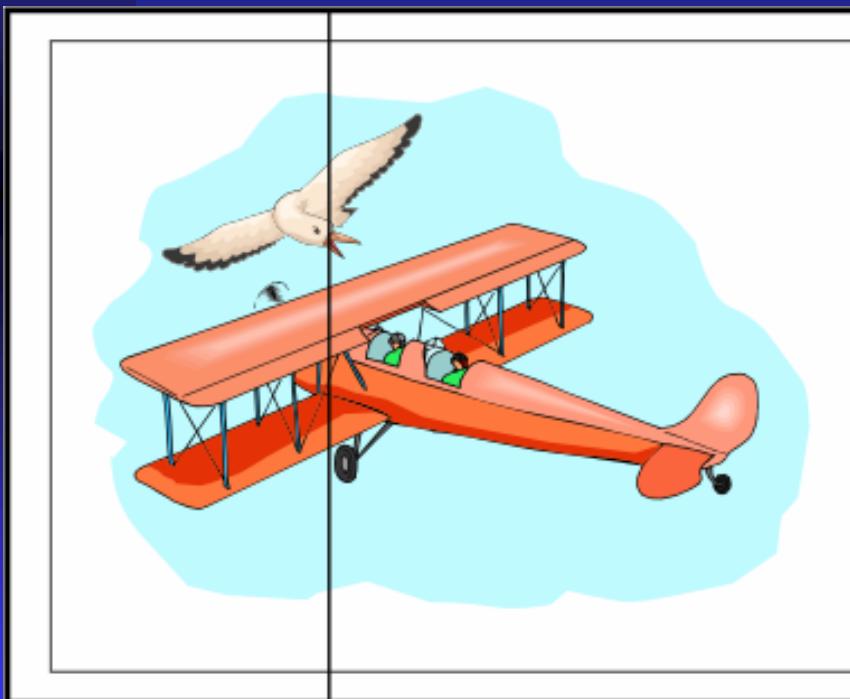
Near point set to cloud



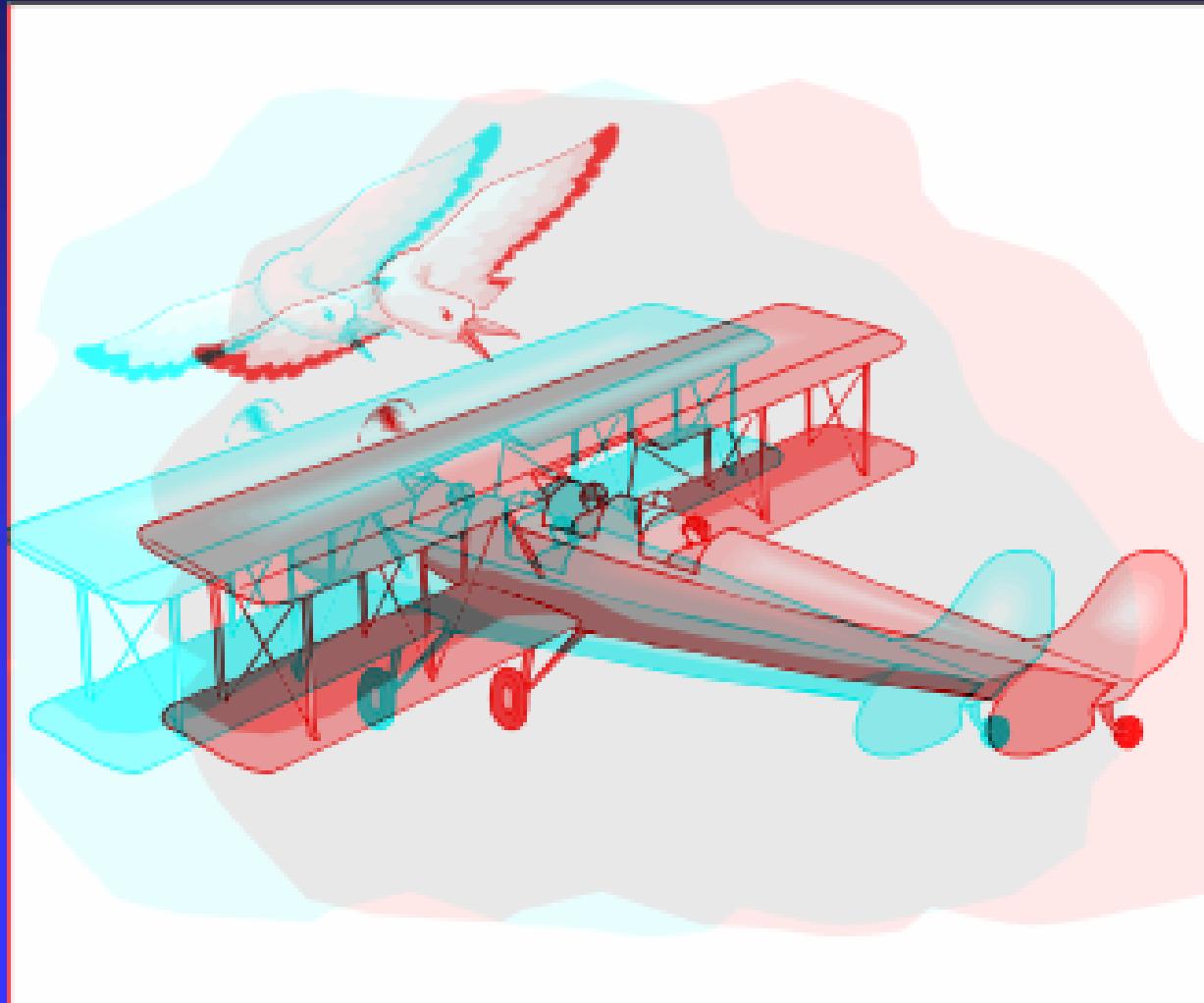
Near point set to cloud



Bird set at far point



Bird set at far point



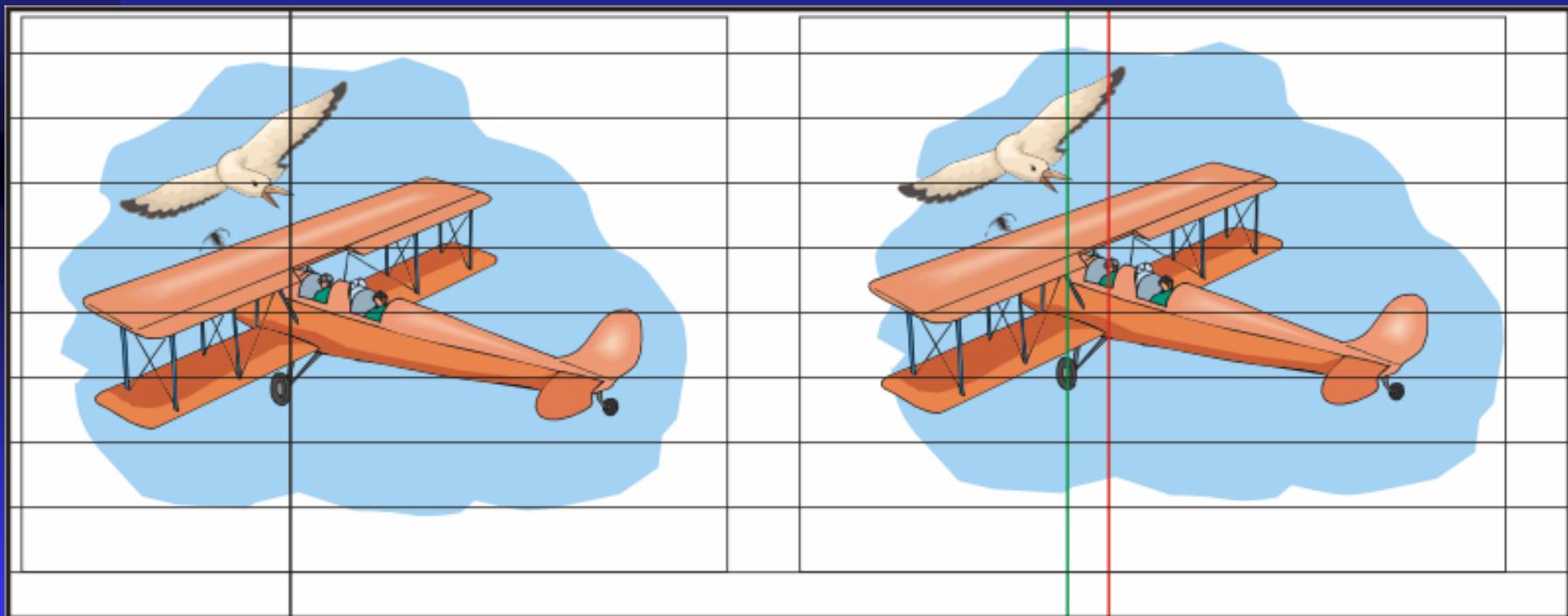
The most common errors

- Vertical alignment errors
- Rotational errors
- Window violations

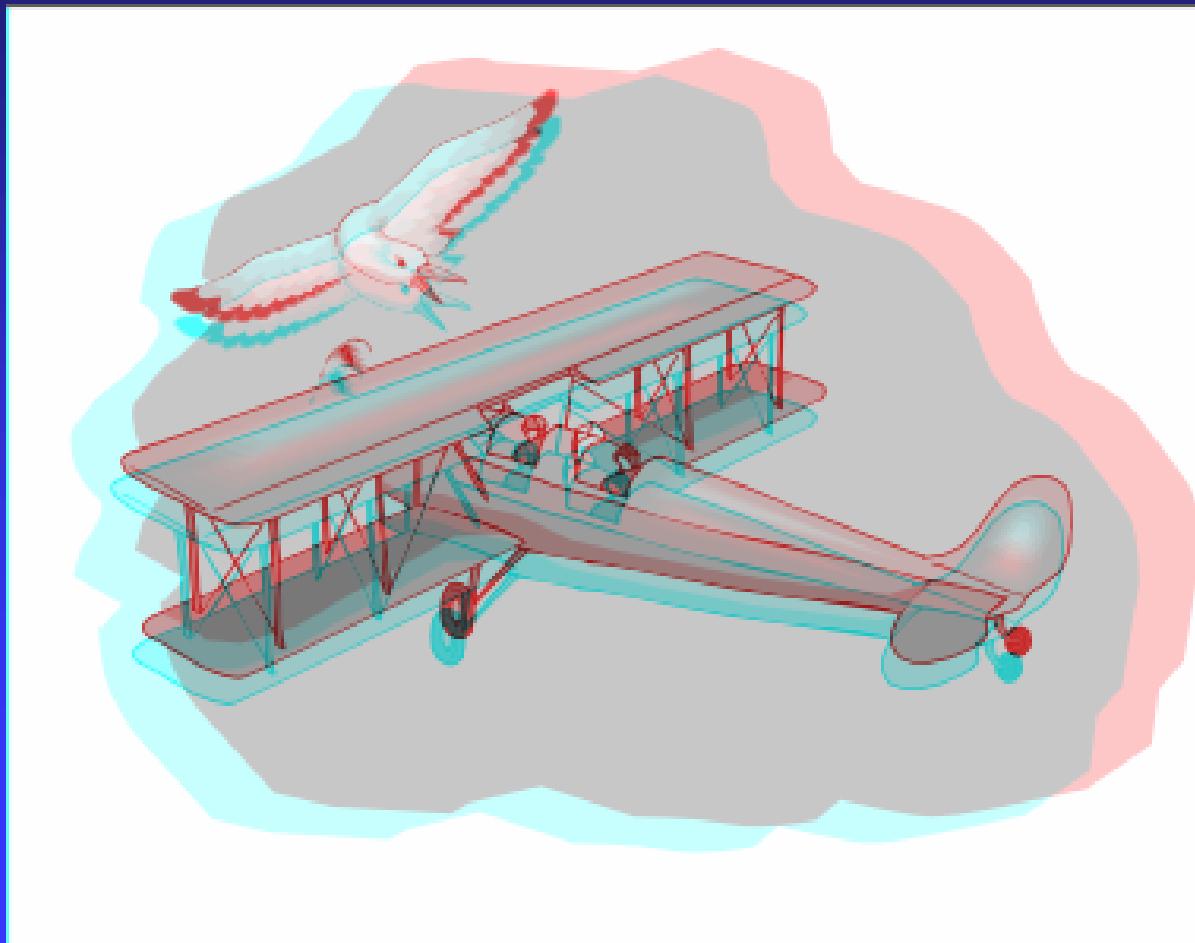
Vertical Alignment Problem

- Vertical misalignment is a very common error
- It's usually consistent on vintage cameras
- Big problem on “cha cha” shots
- Not too obvious in a viewer but very obvious on the screen

Right image is higher then left



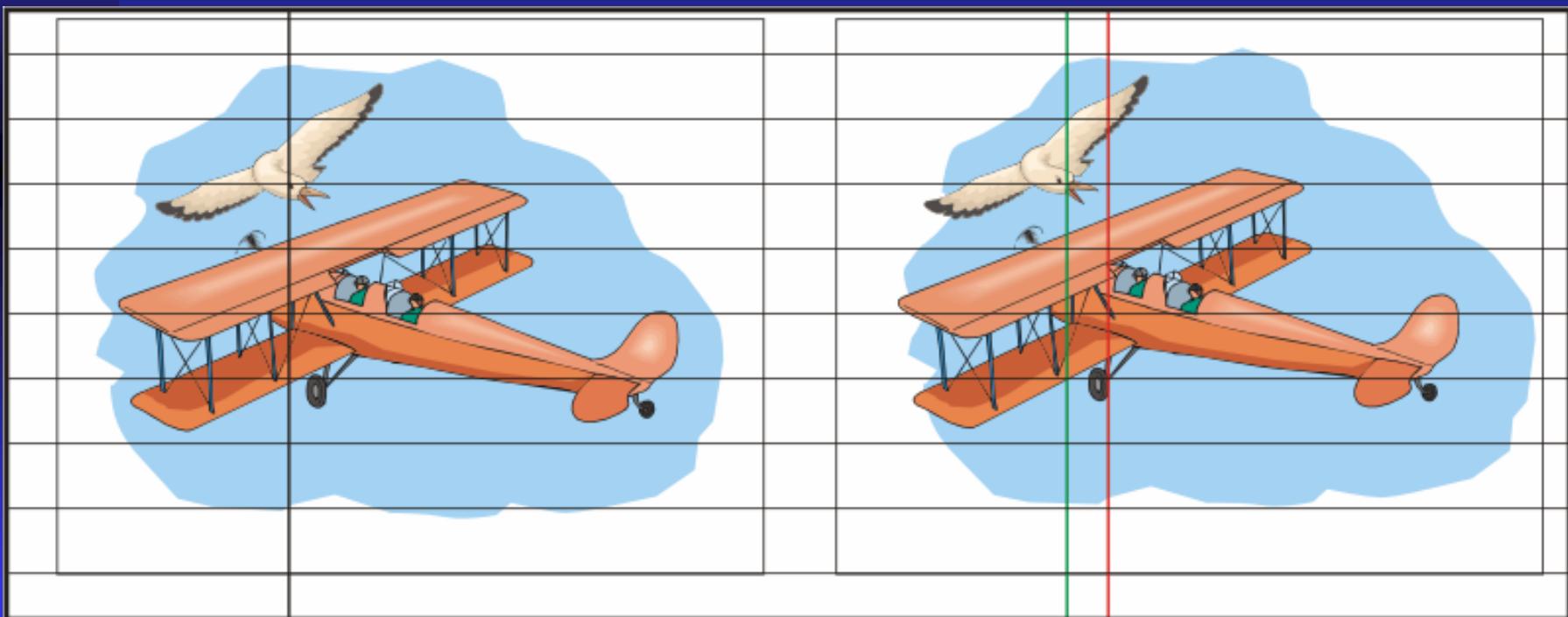
Vertical error



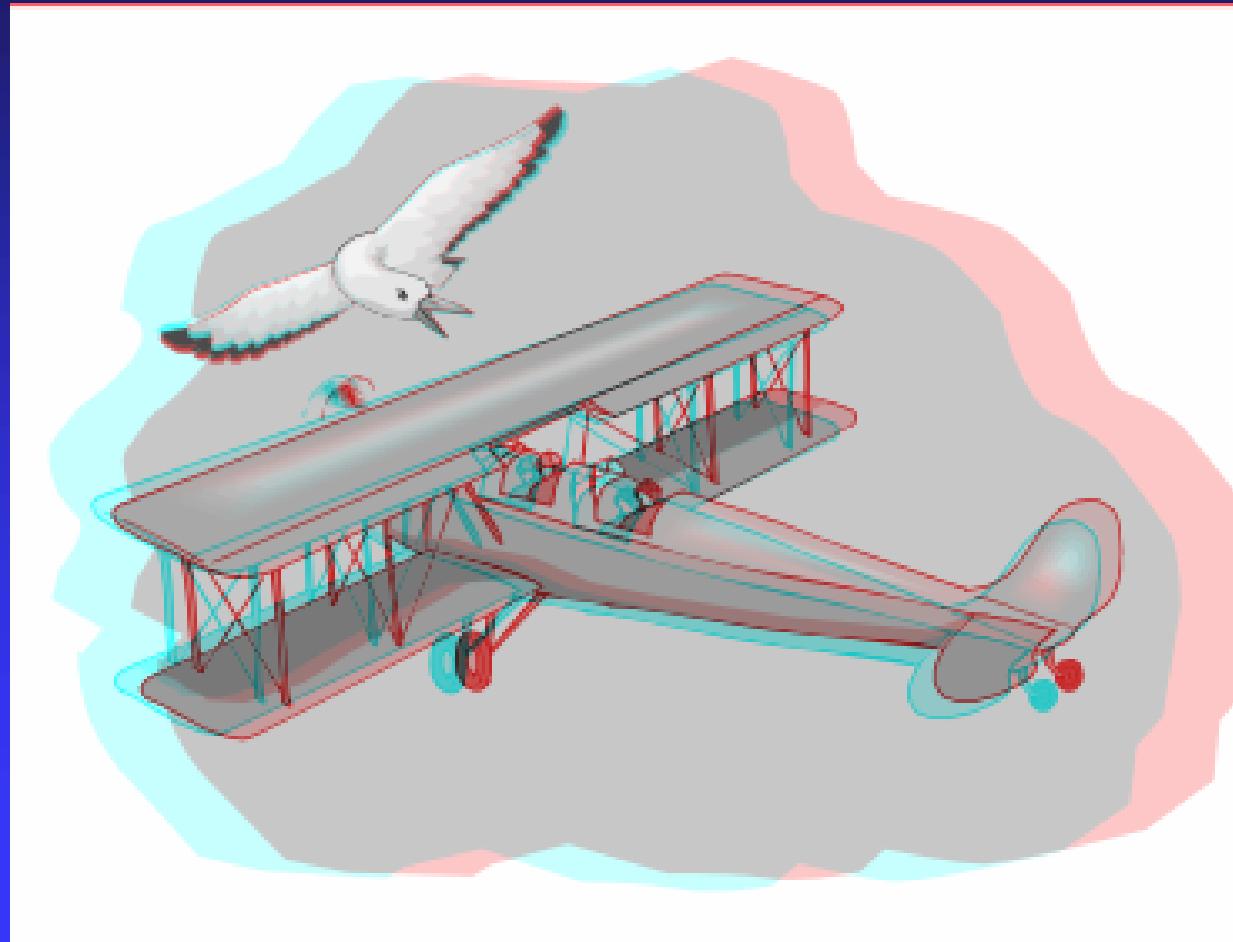
Rotational Error

- Not common with vintage cameras
- Very common with “cha cha” shots
- Really show up on the screen

Rotational error



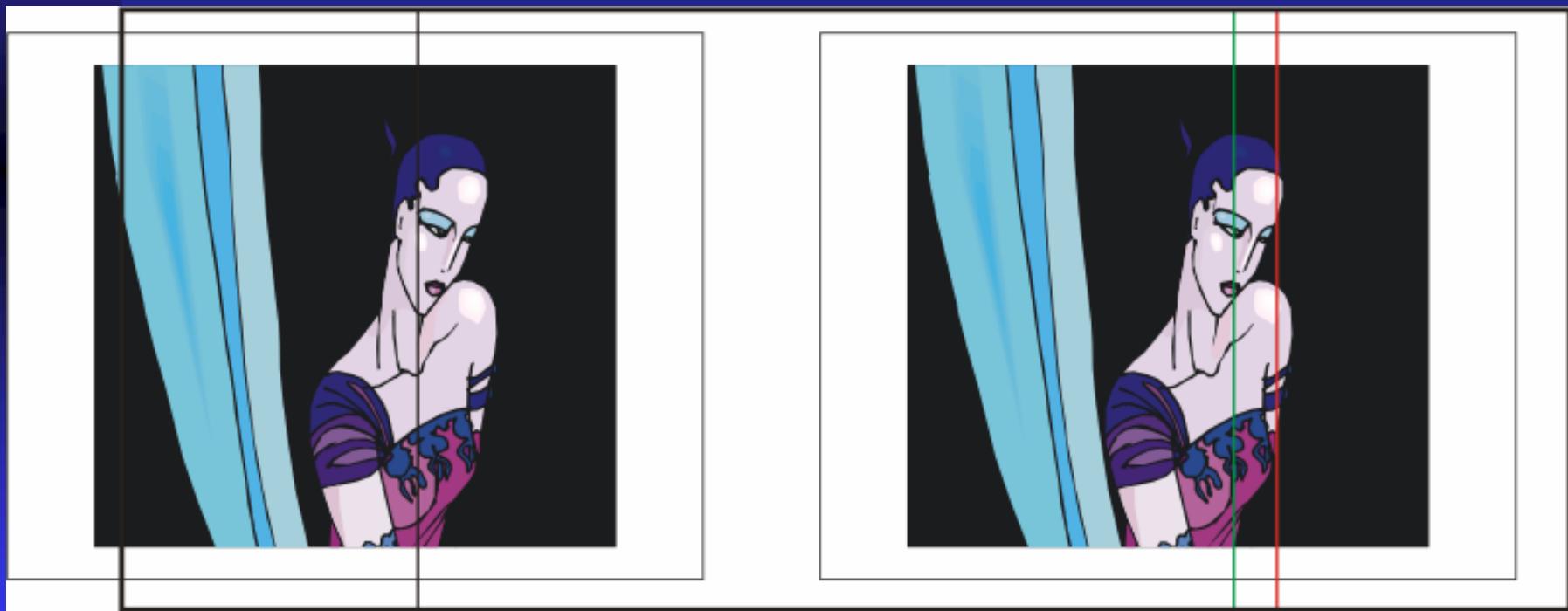
Rotational error



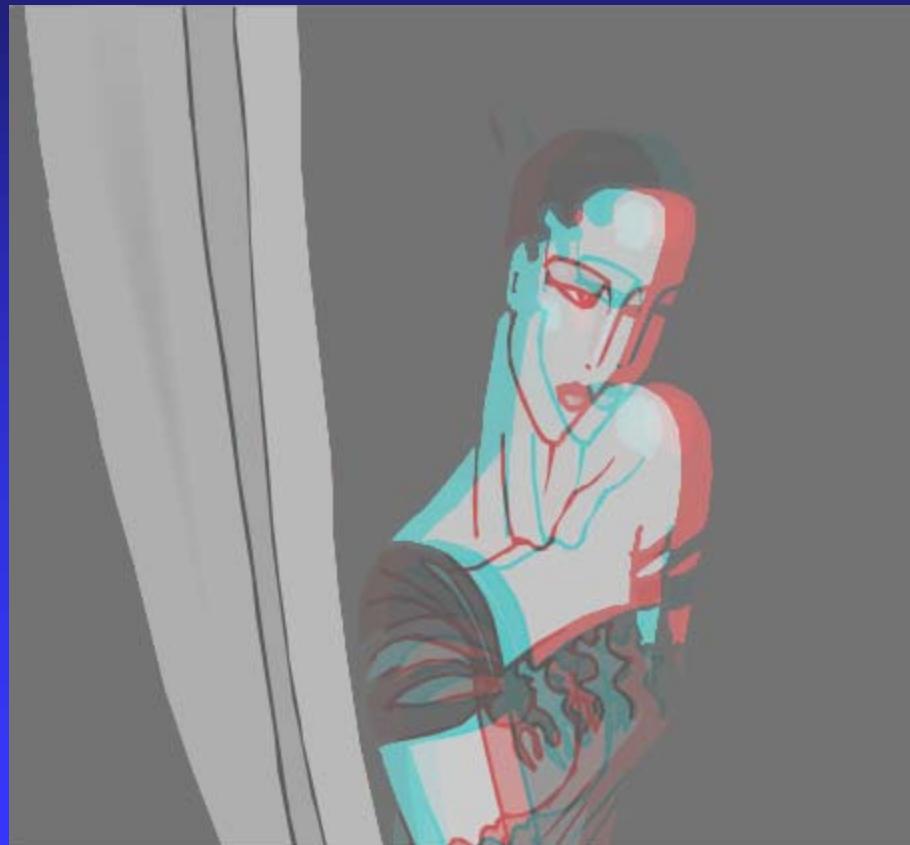
Window violation

- When an object in front of the window is cut off by the window
- No part of an object in front of the window may touch the window edge
- In this case, the girl is cut off at the waist

Window violation



Window violation



Balance works best

- Keep things at or behind the window most of the time
- All points in the image should fall between the “near” and “far” points
- Watch out for grass, tree branches and very close objects when identifying the “near” point

Choosing a slide mount

- If you will not project an image, you have many options
- Projection requires both good mounts and good mounting skills
- RBT plastic mounts are currently the most practical option for projection

RBT positives

- Rigid mount that will not warp in a projector
- A mounting jig is available
- Good selection of sizes and masking options
- No taping or gluing
- Easy vertical offset adjustments

RBT negatives

- Expensive! Around 60 cents an image vs. about 10 cents for cardboard mounts
- Have to be taken apart before use
- Hard to fix rotational errors

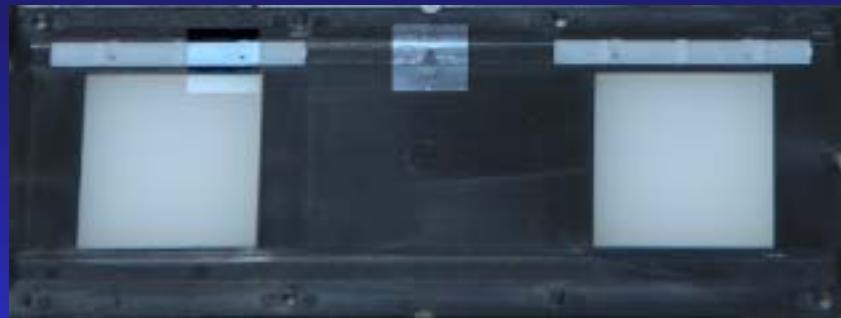
Tools needed

- “SAM” mounting jig - \$195 to \$350
- Alignment gauge - \$10
- Slide cutter - \$30
- Magnifier Visor - \$38
- Light table - \$60 - \$150 (Gagne Porta-Trace)
- Solder Probe or cotton gloves - \$5

Tools needed

- “SAM” mounting jig is optional but highly desirable
- Some kind of box to hold cut chips is nice
- Storage pages for mounted slides are nice but RBT mount boxes work

Components of RBT mount



- Two halves of mount, one black and one white
- Pin bars to position film chips
- “Up” indicator
- Vertical adjustment indicators



- Pin bars slide in channels to align chips
- Vertical adjustments are made by putting pin bars in top or bottom channel or by turning them over

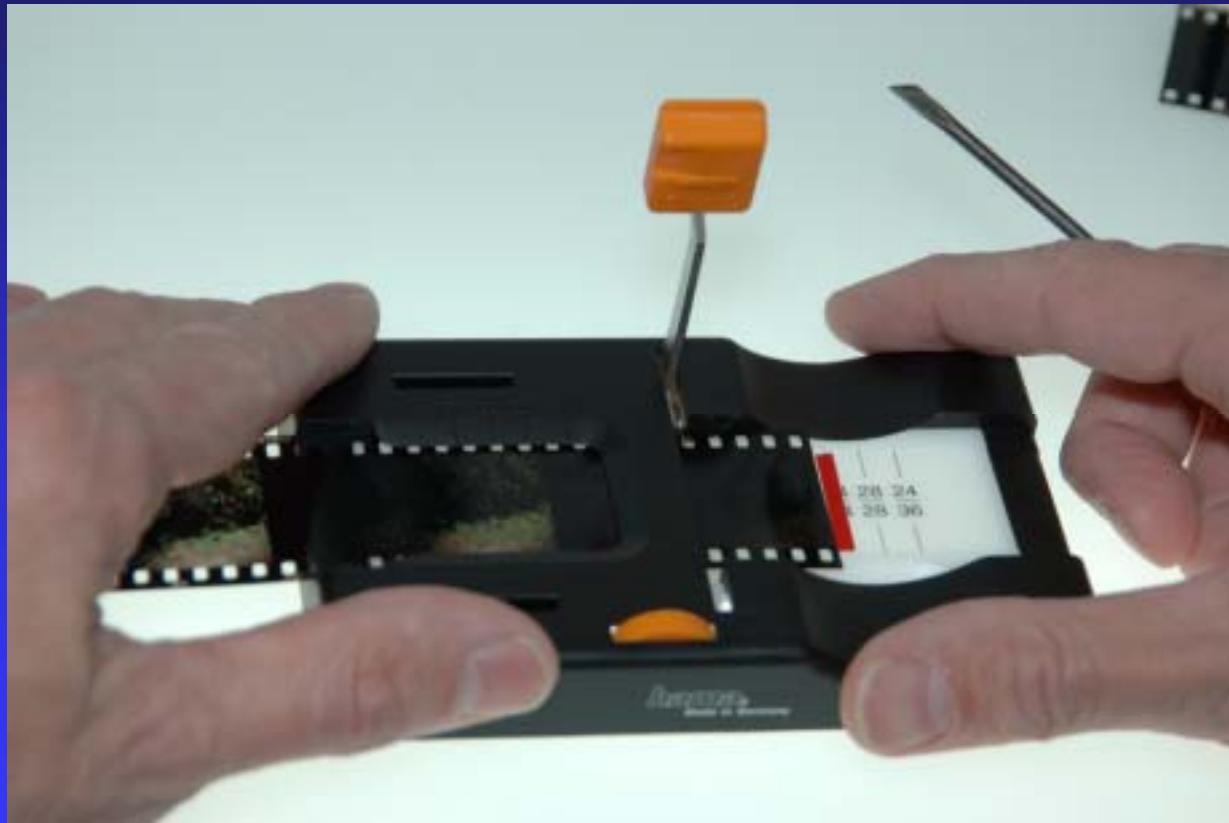
Mounting procedure

- Mount the entire roll or all the images you want at once
- Always mount for projection
- Use the mounting gauge if you are not an expert

Cut out the film “chips”



Use a film cutter not scissors



A magnifier visor helps



Don't touch the chips



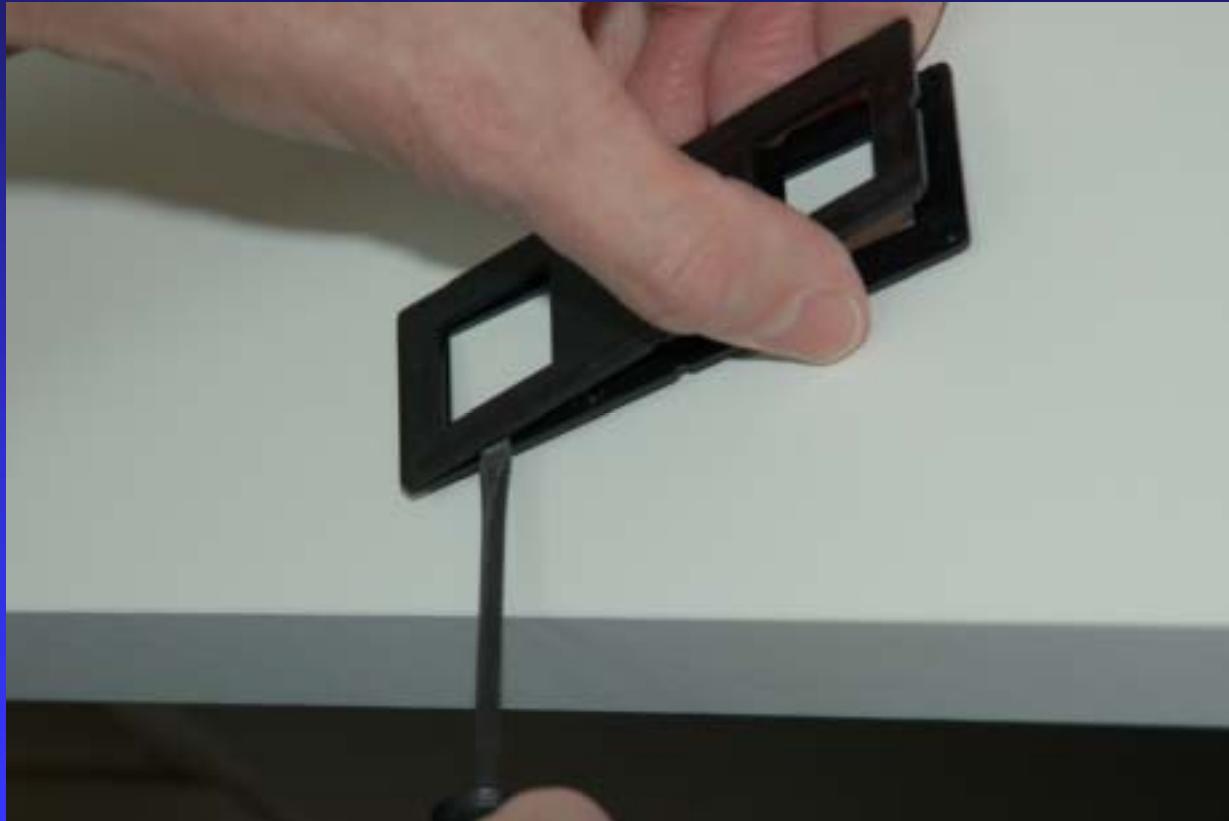
Store chips in a dust proof case



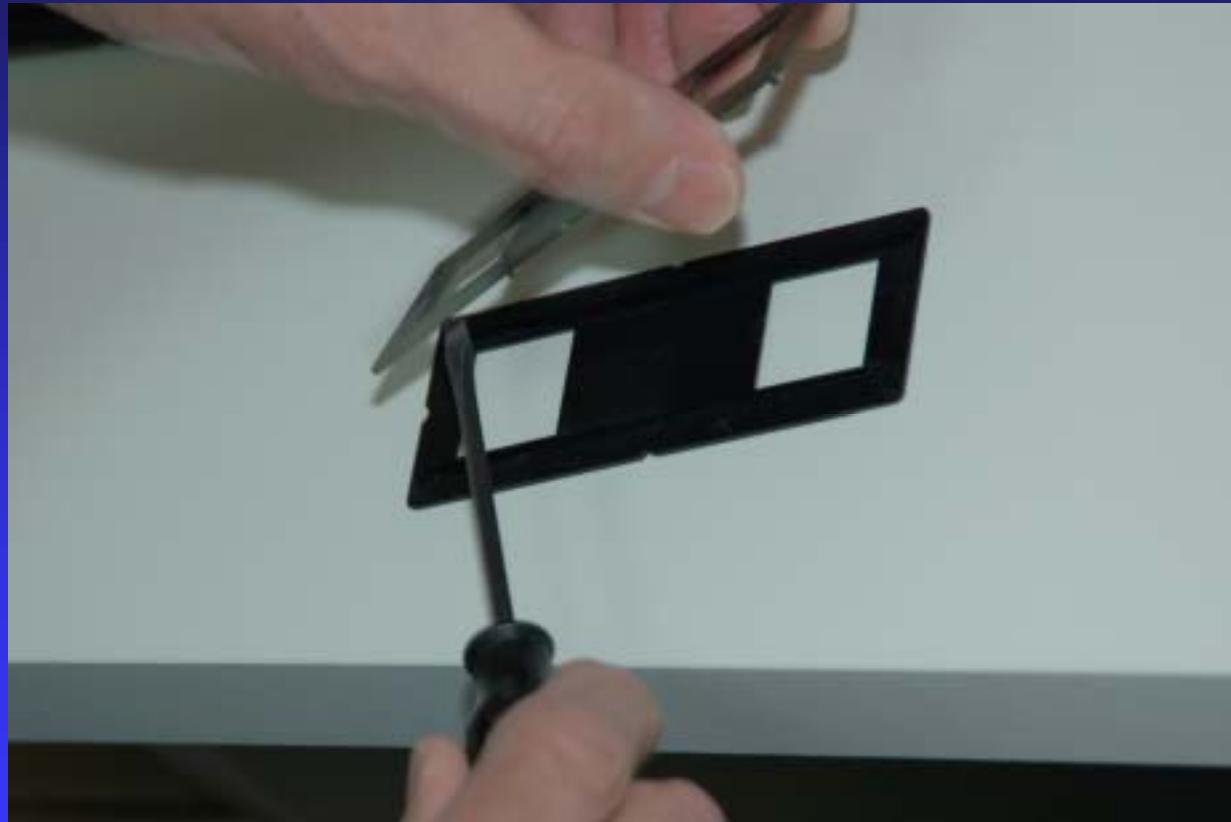
Prepare the RBT mount



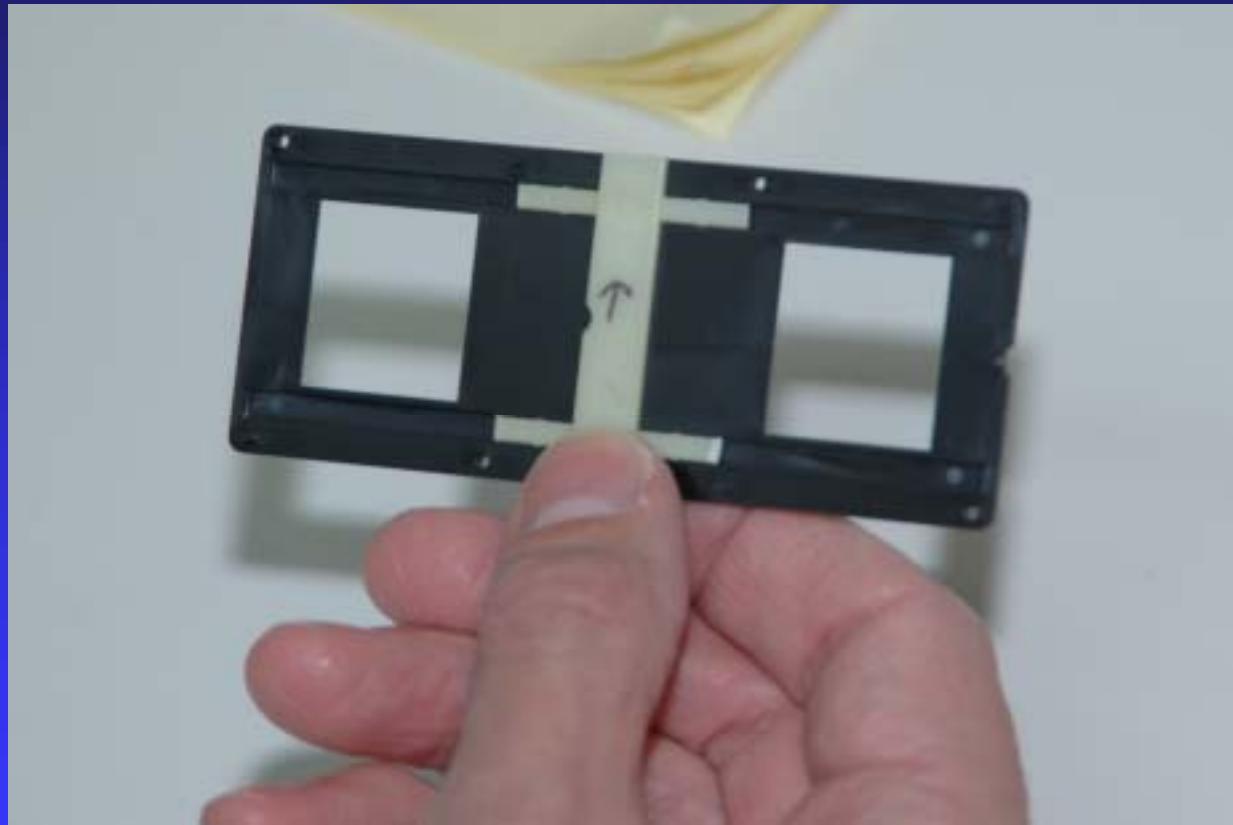
Open each pin gently



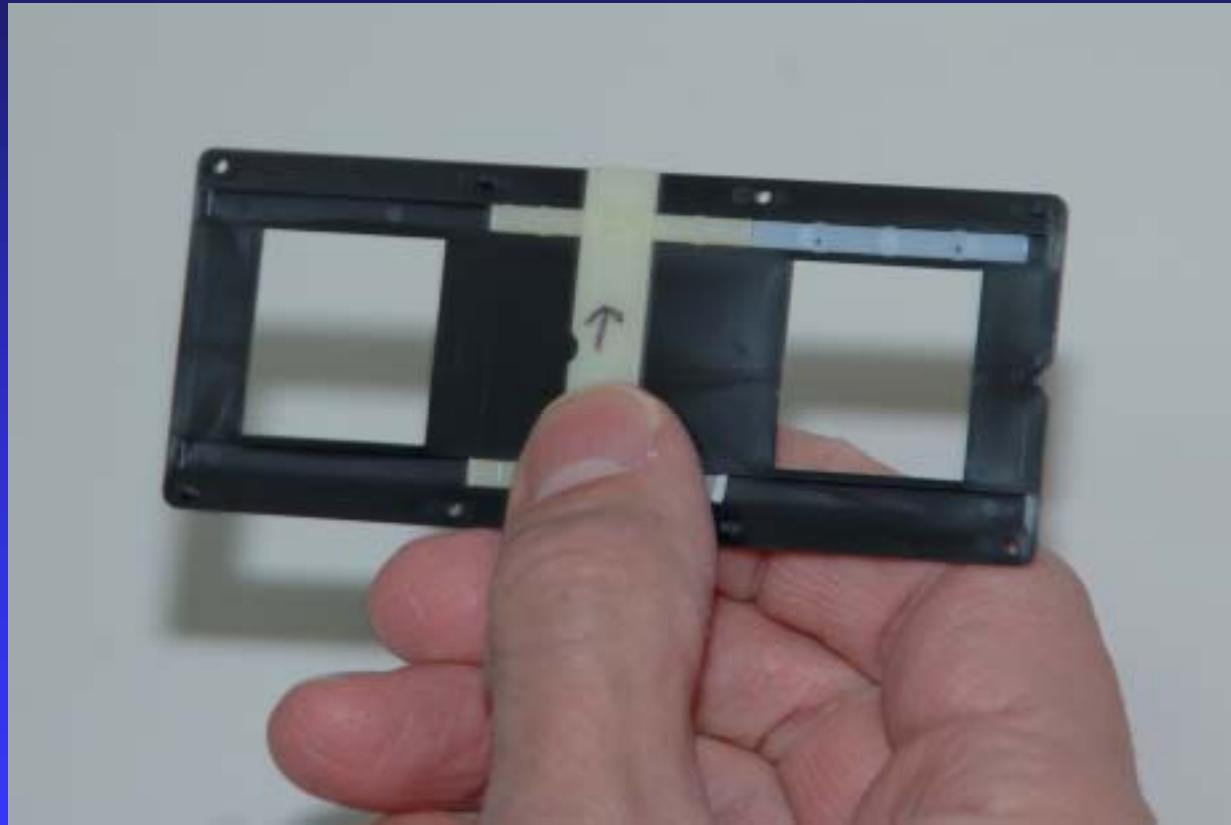
Pins will break if forced



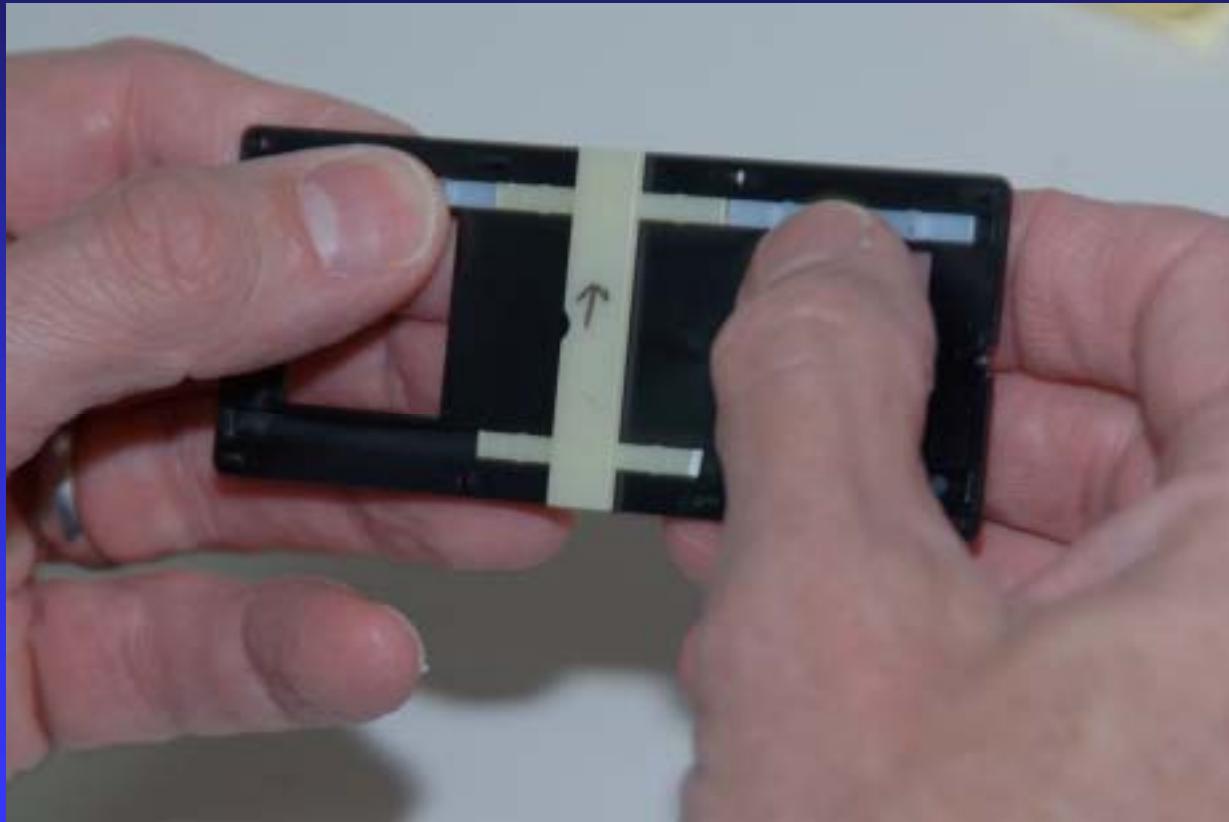
Set the pin bars with the spacer tool



Place pin bars against the spacer



Press them in firmly



Make sure they are in correctly



Using the “SAM”



Place the mount in the SAM holder



Place the chips on the pin bars



“Perfs” go over the pin bars



Align the film chips



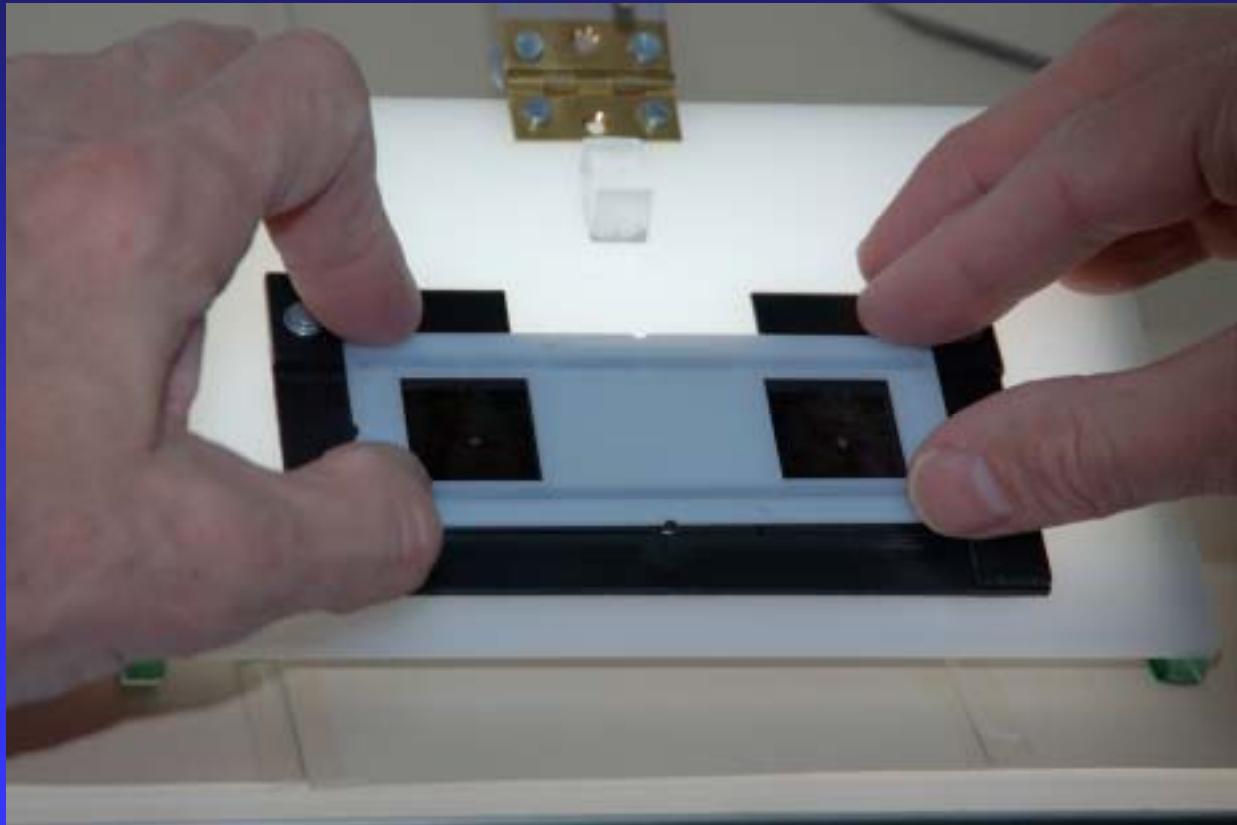
Move the pin bars to align chips



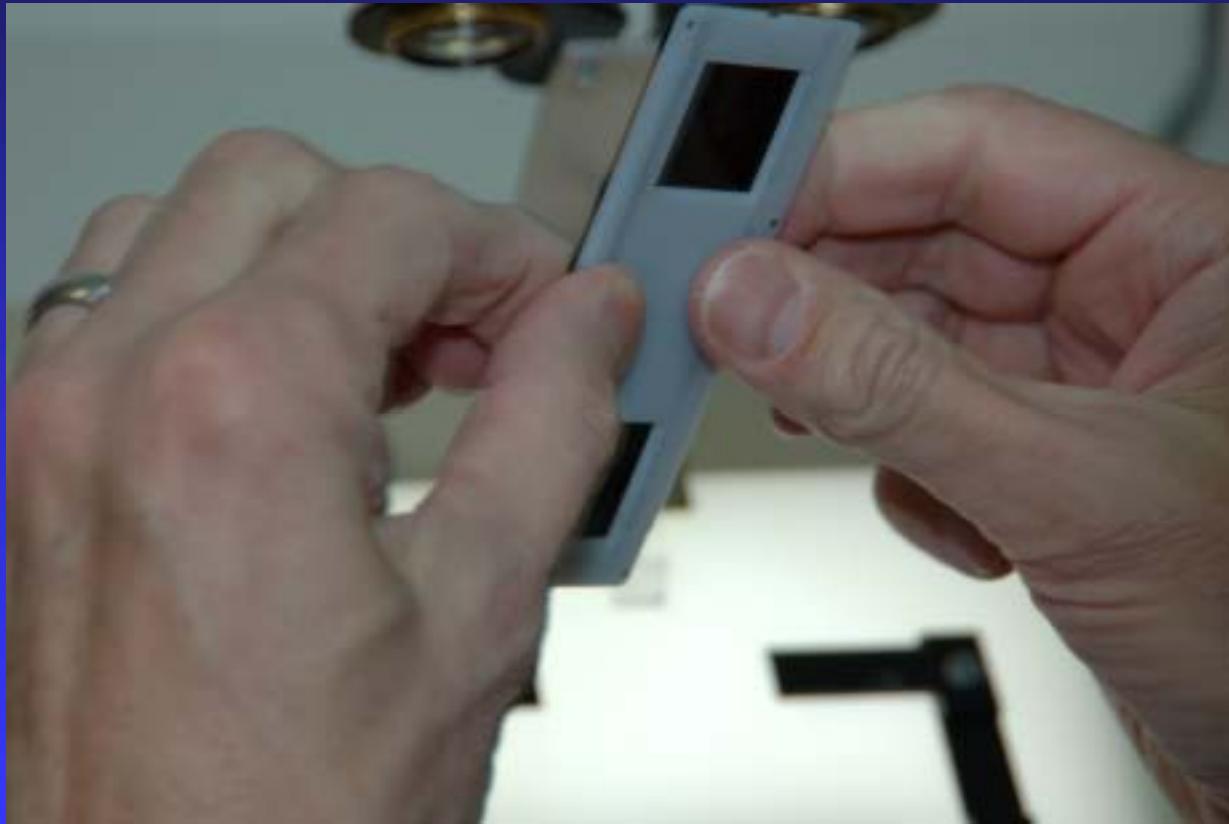
Snap on the front of the mount



Press it lightly in place



Make sure it's fully closed



Check in a viewer



Store the finished slide



Last thoughts

- Slides can look good in a viewer but not be projection quality
- Small mounting problems look awful on the screen
- You can always reuse the mounts
- This is supposed to be fun!