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Date: Sat Oct 21, 2000 2:26 am
Subject: Oil Mounting 101

Oil Mounting 101 By Kevin B.

The first scanner I trained on was a Crossfield 550, back in '86, the last was a Hell 3900 in '96, the last 3 years of my scanning days were with a RF Photo agency, I've experimented with different mounting techniques but I always went back to oil mounting.

Top 5 reasons for Oil Mounting with Clear Film Overlay

I use Dupont C-42 Film to overlay all slide mounts, it is optically clear, flawless and expensive. You can use Mylar but that might back fire when you get a bad batch.

- 1) # 1 reason to OM/CLO is to BUFFER the image from the drum, not just to avoid newton rings, the oil pushes out dust and fills in the fine scratches on the surface of the drum and both sides of the original.
- 2) # 2 reason to OM/CLO is the FOCUS when you use a film overlay the tail end should be cinched very tight! This squeezes out the excess oil and ensures the original is laying flat against the focus plane of the scanner.
- 3) # 3 reason to OM/CLO is THROUGHPUT, you can mount several slides at one time. My record is (107) 35mm's on a medium drum for a Chromagraph 3900. My coworker mounted 117, that mount totally max'd the drum and it hummed like the dickens as it spun.
- 4) You can wipe the image off several times to remove streaks, and with no tape close to the image I don't get those pesky fuzzy fibers from the scan wipe floating over my image as it spins.
- 5) You can also square up the slide, which is very useful when scanning at max enlargements and file size is important or when you are cropping an image using start/stop positions on the scanner.

Oil? Gel? or Laxative?

I use Mineral Oil, it is a Laxative, you can get it in light or heavy grade (don't ask me why) and buy it at the drug store for \$2.50 a liter, which is a far cry from the \$20 for 50 ml of SDS Gel, besides it has a medicinal application for those days when you just can't get comfortable.

It is perfectly clear and slick, which allows you can nudge the slide over or spin it 180° if you have to. You can squeeze out bubbles with very little pressure. It will not harm the transparency in anyway (that's not entirely true, mineral oil can kinda help a slide stick to the bottom of your shoe... or so I've heard).

Cleaning Originals & Drums ...tables...floors...shoes & hands

I used Lab Quality Petroleum Ether to clean the originals and drum, it has less than .0001% contamination. It instantly evaporates and will not leave streaks. It is extremely volatile, one tablespoon on the floor and one flick of a Bic and... Lets just say I know how long it takes to grow eyebrows! If you rub that drum a little too briskly build up a little too much static... **KA-BOOM!** No more eyebrows. You may not be able to get it with out a license or proper ventilation. I suggest using Varn Film Cleaner, and stay away from that anti-static crap, what ever you use be sure to safe test it before swabbing down your drum.

Mounting film, step-by-step

This is the mounting procedure I used for RF Photos, keep in mind, I had an almost exclusive 35mm workload, custom made mounting stations and work area, and mounted 100+ 35mm's per drum. So I had a fairly regimented procedure. I use more oil the most, use 3X the tape and make 10x the mess. I'm really careful about cleaning the oil off before laying the tape down... because if I throw one of these babies it might take someone's head off!

- 1) Buy or build a Mounting Station and build or buy a light table to put it on.
- 2) Strip off the frames and remove the protective sleeves and layout all originals on a clean sheet of coated paper. Do not stack them on top each other.
- 3) Do not pre clean the original if possible, that just builds more static.
- 4) Wipe down your drum using film cleaner, then anti-static drum cleaner.
- 5) Position and double tape the lead edge of the overlay gently so it does not buckle or stretch, it must lay flat and relaxed. Flip it up and over so it hangs behind the drum. Hold back the overlay with a string of tape so it won't flop over, don't let anything contact the upside of the overlay.
- 6) Lay down a generous bead of oil where the overlay on the drum and don't be shy!
- 7) Blow off each side of the original and slip it on to drum just slightly under the roller and trap the majority of the oil under the original.

- 8) Lay another bead of oil over the top portion of the originals release the overlay and advance the drum ...and bingo one row down!
- 9) Repeat for each row adding oil as needed, watch out for dry spots and don't sweat the puddle of oil building under the mountain station.
- 10) Stop 2" from the tail of the squeeze out ALL of the remaining oil , wipe the overlay and drum clean. Use film cleaner and as many wipes as it takes.
- 11) Pre tape the tail hold it up and advance the drum until the tail rolls through, release the pressure roller and roll the drum back.
- 12) Wipe the sucker off! Oil will be everywhere. Be sure the 2" tail and the remaining portion of the drum are perfectly clean.
- 13) Cinch it tight using 4" strip of tape, starting in the middle lay 2" onto the overlay pull hard stretching the tape and roll the drum forward. Use as many as you like spaced or overlapped, moving outward and switch from side to side. If the a piece tape snaps loose or breaks your pulling just about right, depending on the Mounting Station sometimes you can bang up you hand pretty good, ...grab a Band-Aid, wipe your tears and at get back at it!
- 14) Wipe the drum and overlay clean of oil, be careful not to push in any air into the mount when wiping the sides
- 15) With the head and tail secure, the mount tight and free of excess oil, seal the right and left sides of the overlay with a single piece of tape long enough to wrap 3x around the drum. Starting with most of the tape width on the overlay and very little tension, slowly rotate the drum forward pull and corkscrew outward, overlap each row until the tape width is mostly on the drum.
- 16) Inspect for leaks, push out any bubbles and re-tape over anything that looks loose. Set it up and spin that sucker!

Helpful Tips:

Have plenty of air cans at the ready, the more images your mounting the more air cans you need, as the can gets cold it will also lose pressure.

Empty a new air can by 15%–20% to avoid giving someone's original the Cryogenic treatment, hold it upside down a let er rip! And fight the all consuming desire to give a coworker the preverbal "Howdy Do!" as it will burn the skin and sting for days ...or so I've heard.

Do not back up the drum without pulling the overlay forward and tight. If it becomes lose your Doomed! Bail! Clean up the originals and start over.

If you hear a ...tick...tick...tick noise when it's spinning stop the scanner and look for a loose piece of tape.

If you hear a ...TWACKITTY...TWACKITTY...TWACKITTY noiseDUCK!

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