

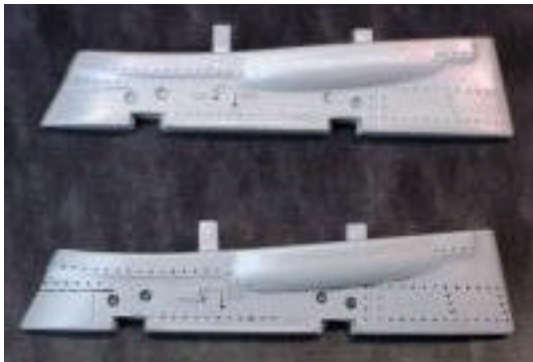
PANEL LINE WASHES

A "Wash" is a means for emphasizing subtle areas on a model or for adding areas of weathering. For example, the dirt that collects in areas of an aircraft or tank can be done using a wash. There are better techniques for areas of heavy mud or built-up dirt, but to just show the coloration of dirt a wash is perfect. A wash can also be used to emphasize the shadows that are common in corners where two panels come together, for example in an airplane cockpit, or between panels on an airplane's skin. As with muddy areas there are other techniques such as "Pre Shading" that work quite well but a wash is an easy way to enhance otherwise bland areas on a model.



Here is an example. It shows the nose gear of my [F-4E Phantom](#) and you can see how a wash has been added to emphasize the areas where dirt would collect on the gear strut and the door of the gear well.

The landing gear and gear well of an airplane is nearly always dirty. The oleo struts frequently allow a film of hydraulic fluid to escape, and that fluid attracts dirt like a magnet. Additionally, when aircraft are taking off on wet runways the water sprays up and blows dirt everywhere. Even a well-maintained aircraft will usually have dirty, nasty gear struts and gear wells.



Here is another example. It shows two of the stores pylons for the [Trumpeter A-10](#) that I'm currently building. The pylon on top has not yet been washed whereas the one on the bottom has. You can see that the lines and rivets on the bottom pylon stand out much more than they do on the top pylon (I also noticed in the photo that I wiped the wash out of some of the areas!).

That appearance is somewhat more stark than I would recommend for most circumstances, but there will be some additional weathering to "Dirty Up" the bottom of the plane and it should look right then. When this photo was

taken the parts had not received their final coat of flat clear either.

I would like to point out that I primarily build airplane models. I don't pretend to know anything about armor and wouldn't know where to start to accomplish some of the beautifully shaded and weathered tanks I've seen, so this article is mainly about aircraft. If the techniques translate to armor and other venues that is great, but I don't know how well they will work.

I'd also like to point out that as with many other aspects of modeling there is no "Best" way to do anything. The "Best" way for you is the way that you prefer, and only experimentation on your part will allow you to find that. Try different things. Find out what works best for you. What works for me may not work for you, and what is written here is only that which works best for me.

A couple of words of advice:

Washing panel lines, especially on large models, can be quite time-consuming. On large models there are a lot of panel lines and each one needs to be done individually. Before you start you need to decide whether you are going to invest the time necessary to do it right because a sloppy wash looks worse than no wash at all in my opinion. You need to take the time that is necessary to get the excess off completely or the model will just look dirty and sloppy. If you aren't going to do your wash right just don't do it at all.

Before you add your final clear coat, take the time to stop and look over every single line under different lighting angles. It is normal to miss getting the excess off in a few places, and it is far easier to find that and clean it up before you spray your model with a clear gloss or flat coat than it is to find it later.

There are various methods for doing a wash. Many people use enamel or oil-based paint for their washes. Others, myself included, use acrylic or water color for a wash. The type of thinner that is used to get the excess wash off is based on the type of paint used and the preference of the person doing the wash. It is important that you find a method that works best for you. Everyone uses the method that they prefer and that may or may not be the best for you. Experiment. Find a method that works for you, and if it is different from everyone else's, so what. All that matters is that it works for you.

I'm not going to go into a lot of detail on how to weather a model. Rather I will refer you to [Matt Swan's page on weathering](#) since he goes into a lot of detail. This page describes the method that I use for a wash, and your ideas or methods may vary.

The first thing I do is prepare the surface. I never, never, EVER try to apply a wash to a flat surface. The surface doesn't have to be perfectly smooth and glossy, but the smoother it is the better the wash will flow. I've heard of some people getting away with doing a wash on a flat surface, but my experience is that it is a perfect recipe for a disaster. The wash is so thin that it runs through the texture of the flat surface and no amount of rubbing is going to get it off. I ALWAYS put a coat of Future on top of flat paint prior to adding a wash. Future Floor Polish is the modeler's duct tape and it works for just about any circumstance when you need a glossy surface. If you aren't familiar with how to use it I'll refer you once again to Matt Swan's web site, but this time to his page on [The Complete Future](#). Where would we be without Swanny's help!

The next step is to pick the appropriate color. To emphasize shadows and panel lines the color chosen should be a few shades darker than the base color. If the base color is green then the wash should be a slightly darker green. If the base color is gray then the wash color should be a darker shade of gray. If I am specifically trying to show dirt or grime then the color chosen can be a very dark gray or brown. Many people use dark sepia as their "Normal" wash color. If this works for you that's great. Again, my advice is to experiment and find what works for you.

Next, mix up the wash. I nearly always use artist's acrylics for a wash because they work well, dry very quickly, and the excess comes off easily. I mix a couple of drops of paint with a lot of water. Don't ask me what thinning ratio I use because I have no earthly idea. Maybe somewhere around 20 or 30 to 1, but I never bothered measuring it. I just get it slightly darker than I want the final color to be. I then add a couple of drops of dishwashing detergent to the mix. I then add a couple of drops of dishwashing detergent and a couple of drops of white vinegar to the mix. The detergent decreases the surface tension of the water and allows it to flow along the panel lines better. The vinegar helps keep it in the areas you are washing. You can also use Liquitex Flow-Aid (thanks Matt!) in place of the detergent and vinegar, it works quite well.



I like these Lowe-Cornell 7350 liner brushes for a wash. They have long, pointed bristles that fit quite well in panel lines. Also they long bristles hold a good

bit of paint. I've had this one for a good while, but I think it came from Michaels. Most any good art supply store should have something similar though.

Dip the brush in the wash and touch it to a panel line. Capillary action will pull the wash right along the panel line. Don't worry about excess getting outside the line, that's the next step. If the wash doesn't flow properly you may need to add a little bit more dish washing detergent (acrylic and water color washes ONLY!) or get your surface a little smoother.

Once the wash has dried (only a couple of minutes are necessary for acrylic or water color washes) I wipe the excess off. I use a Q-Tip rolled tightly and then moistened (NOT soaked or wetted or dunked, just barely moistened) in Windex. DO NOT rub hard and DO NOT rub very long. If the surface is smooth all you need to do is wipe the Q-Tip over the wash and it will remove it. If you rub very long or very hard it will remove the Future underneath. An alternative to a Q-Tip that works very well is a small piece of a paper towel folded into a triangle. Start with a piece of towel about 1-1/2" square and fold it corner to corner to make a triangle. Then, fold that in half. Repeat this a couple of times and you'll have a tiny triangle that is tightly folded. I usually use a pair of locking tweezers to hold this with. Whatever method you use, try to rub across panel lines and never along them. If you rub along the panel line you will remove all of the wash, but if you rub across it this will not happen as badly. If all the wash gets wiped out just reapply and try again.

Finally, I let everything dry and then spray a coat of clear gloss or flat over the top and it's done. A word of warning here; you need to match the clear coat to the type of paint used. Not just the wash, but your barrier coat and the base paint underneath. Many of the clear coats that are in spray cans are laquer and if you are using laquer over acrylic or water color you need to be especially careful since it can easily dissolve the other paint. Spray a couple of very light mist coats and allow ample curing time in between.

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