



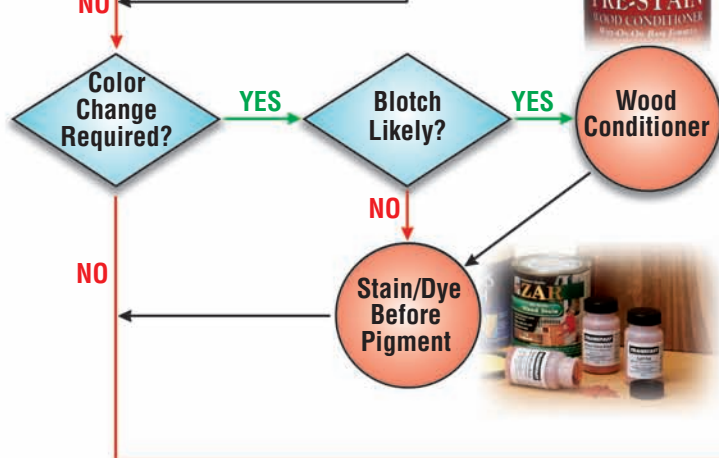
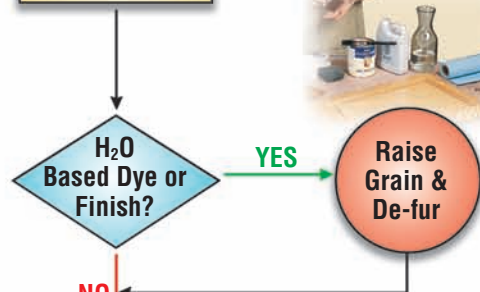
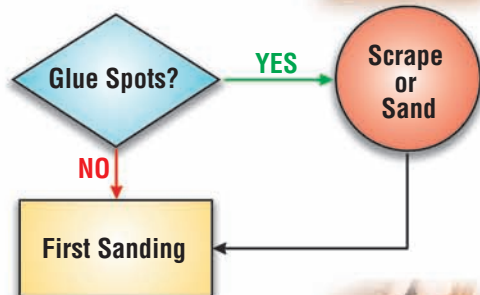
Finishing Flow Chart

By Michael Dresdner

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Start



An annotated flow chart for your workshop's wall

In previous columns, I've explained virtually every step of the finishing process in detail. Today, I bring it all together with an annotated flow chart that shows the order of those steps, which steps are mandatory and which are optional, and what questions you should ask in order to tell the difference.

I will assume only two things: that you are starting with clean, new wood, and that you have already made samples. The last thing you want during finishing is a surprise, and making samples of your intended finish steps on scraps of the wood you plan to finish will go a long way toward avoiding unpleasant surprises.

In this chart, all mandatory steps are yellow (rectangles), all optional steps are red (circles), and all questions are blue (diamonds). This running text

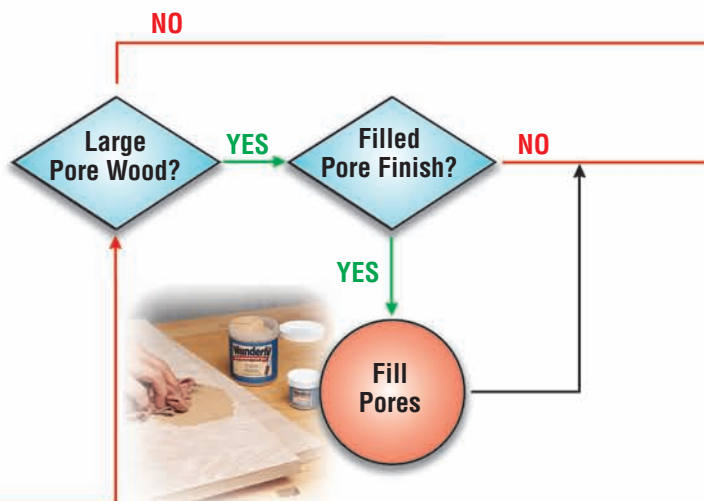
contains a bit more clarification. For in-depth explanations of each step, you should read the past columns that covered those topics. One thing that should be comforting is that there are only four mandatory operations in a simple finish, half of which are preparation steps involving sanding and cleaning.

The Workflow

Glue spots: Check for glue spots by wetting wood with either water or mineral spirits to make the spots more obvious. Remove the glue by scraping or sanding.

First sanding: Hand or machine sand with at least three successive aluminum oxide grit sizes: 80 (or 100), followed by 120 (or 150), followed by 180 (or 220).

Wood putty: Fill dings or nicks with wood putty that matches the color of the wood, or so that when stained, it will ape the stained wood. Leave the putty slightly



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proud. After it has dried, sand flush during the next step so that the sanded area reveals the exact shape of the original void.

Hand sand & clean off dust: This time, sand by hand, going with the grain when possible, using 180- or 220-grit garnet paper (as opposed to aluminum oxide paper). This step also sands putty flush. Always sand all areas of the piece the same way, in the same sequence, using the same size and type of grit. Wipe, blow or vacuum off sanding dust.

Raise grain, de-fur: Sponge wood liberally with clean water, wipe it all off, and let it dry overnight. Sand very lightly the next day with 400-grit paper. Sand only enough to remove the raised fur.

Conditioner: Apply wood conditioner only when necessary. Some woods and stains require it, while others do not. Making samples will tell you if you need it. Flood

conditioner on, wipe it off, and stain while the conditioner is still wet.

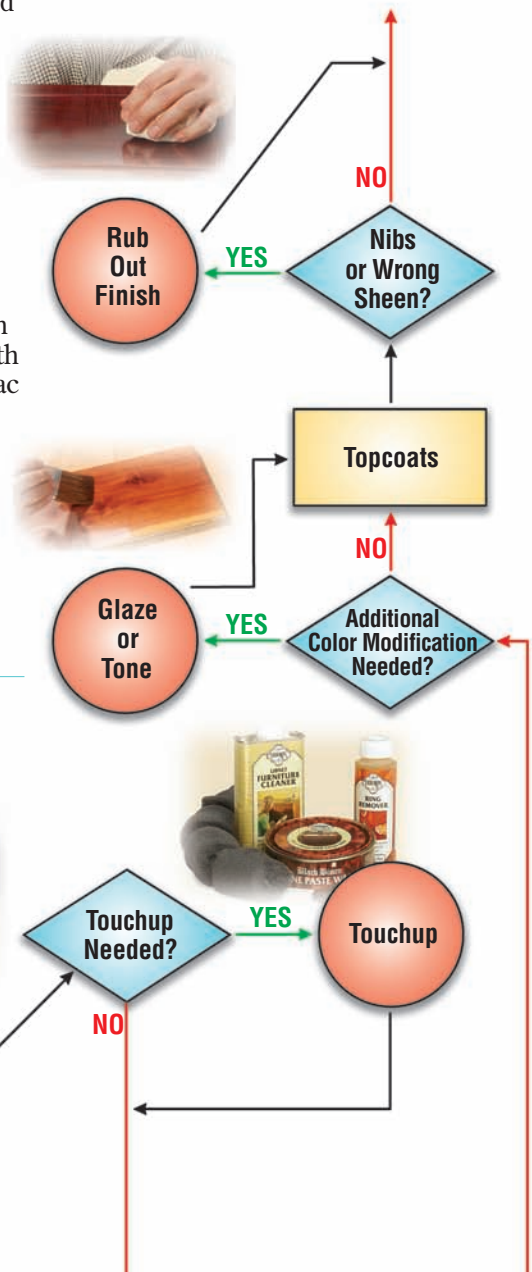
Stain: Flood stain on liberally, and wipe it off while still wet. When using two types of stain, dyes go on first, followed by pigment stains. Let each application dry completely before proceeding to the next step.

Fill pores: Open pore finishes on large pore woods are both common and attractive. However, if you prefer the look of a glass smooth surface, fill the pores with inert pore filler. Seal the wood with a very thin coat of dewaxed shellac or Zinsser SealCoat™, or use a thinned coat of your intended topcoat. Apply the filler, remove it, and when it's dry, sand lightly to remove any filler residue on the surface. Let waterbased filler dry overnight, and allow three days for oil-based filler.

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Finish



Applying Sealer and Topcoat

Sealer or first coat: Usually, the first coat of finish will act as the sealer, but in some cases, special sealers are helpful. Zinsser SealCoat is a good choice for the following situations: refinished (as opposed to new wood) surfaces, woods that contain anti-oxidants (all dalbergias and some cedars), extremely porous woods, knotty or resinous woods, surfaces emitting odors, dyed woods and any surfaces that may have been contaminated with wax, dirt or grease. If a special sealer is not needed, simply apply the first coat of finish at this point.

Touchup: Here's where you touch up any missed glue spots, putty spots that came out too light or color irregularities. Putting touchup under glaze or toner coats helps hide it better. Applying it after the first coat prevents it from seeping into the wood and spreading, and allows subsequent coats to seal in the touchup.

Glaze or tone: You can add color between layers of finish with glaze, a thick pigment stain, or with toner, a clear finish laced with dye.

Topcoats: Apply as many coats of your favored finish as is needed for durability and appearance. Sand lightly between coats to remove nibs, brush marks or spray pattern marks. Sand to improve adhesion only if you have waited more than a week between coats of varnish, polyurethane or waterbased coatings. Adhesion sanding is never required for shellac or lacquer. With catalyzed finishes, follow the specific manufacturer recommendations.

Rub out: It is almost impossible to get a final surface smooth enough, so I always plan to rub out the finish. Sand lightly with very fine paper to level nibs. Rub with 0000 steel wool and paste wax for satin finishes, or use finer grit sandpaper, followed by rubbing and polishing compounds, for gloss.



Michael Dresdner is a nationally known finishing expert and author. His latest book is Wood Finishing Fixes by Taunton Press.