

What is a base?

- Anything that displays a model made from: wood, metal, paper etc.

Why?

- Speaking from a competition standpoint: Anyone wanting to basically put their model on display and raise it above others on the table.
- It makes it look like a trophy and brings an additional level of professionalism to the presentation.
- Keeps hands off the model! A mirror is perfect for this as it shows the underside.

It good to.....

- ..have woodworking skills and knowledge or know someone who does.
- ..have knowledge of dozens of choices in materials and finishes (especially woods, stains/paints and finishes)
- ..have tools to make the bases. Paying a professional can be cost prohibitive. It's critical to have and use the proper tools to do the job right and in a reasonable amount of time.
- ...have the basics (for woodworking): Hand saw, square, a small block plane and sandpaper
- ..have more tools: Basic tools plus a router with various bits, circular saw or best yet a table saw

Want some stats? At the 2008 IPMS Nationals, models on bases:

- Aircraft pics 36% (1 in 3) of the 400 pics were on a base - majority were on a mirror
- Autos 256 pics, 29% on bases: 20% on wood/plain, 2% on ground work bases, and 7% were on mirrors
- Armor 442 pics, 77% (3 of 4) were on a base...most had groundwork.
- Summary - a littler more than 1 in 2 models were on a base of some kind.

Three Kinds of Bases

1. **Flat** - base that is typically less than ¾" (std. store bought board height) usually of wood to display a model perhaps with an ID tag/label/plaque.
2. **Trophy** - a base greater than ¾" such as a figure stand, or raised platform for a car so the underside can be seen, or even a diorama where changes in terrain elevation are made.
3. **Scenic** - a trophy or flat base with scenery added to it to display the model in its habitat.

Base Pointers:

- The best bases are the ones that...look good. Take time making the base and with as much care as your model. In most cases, a well stained and fine furniture finish present the best impression. It's a subconscious thing but a very professional looking base helps you win favor with the judges...even though the rules say it shouldn't.

- Using the better materials also helps make the base look more professional. Specifically when it comes to wood selection: hardwood (maple, poplar, mahogany, cherry, etc) is far better than softwood (fir, and pine)
- If adding scenery such as a road or grass field, don't go overboard with scenery to display a model. It may look good but then should really be a diorama vs. individual model. Keep in mind the scale especially with vegetation. Those trusty paintbrush bristles for 1/32 grass will really look like bamboo shoots with a similar 1/72 display.

Making a flat wood base no scenery, with a professional looking furniture finish

- a. Start - I recommend hard woods such as Poplar, Maple, Oak, Walnut, Mahogany in order of lowest to highest price. Softwoods such as Pine and Fir (hard pine) can be made into a very nice base but it takes more work. The home centers will have Poplar, Oak, Pine, Fir and perhaps some Maple. The Woodcraft store (Willow Lawn) will have all the hardwood selections and exotics (real pricy stuff) as well.
- b. Once you have your board and assuming its all smooth and cut to the desirable size; take a router with an edging bit and route each edge. First cutting the end grain very slowly and the cuts on the sides with the grain. Dozens of edging styles can be created by changing bits, using more than one bit, or even using only a portion of a bit.
- c. After routing all edges and checking for chip-outs and wood "flash" I sand with 220-grit sandpaper. Paying careful attention that I'm sanding with the grain as much as possible. It's not a model so you do not want a 12,000 grit smooth surface. The stain or finish needs something to absorb and grip into. We'll smooth it out later.
- d. Some stains are better than others. While Min-wax is a great stain and will work fine...I prefer a higher quality finish and prefer a selection of aniline dye stains from Behlen for a rich deeper color (Available at the Woodcraft store). I prefer dark color stains and a hand rubbed finish. Apply the stain as evenly as possible with a brush or tee-shirt cloth. Be careful not to put so much on the end grains. As the end grain will really suck up the stain and will turn out much darker than the other edges and top surface.

If desired, a "primer" coat can be applied such as a paste wood filler/sealer. Its purpose is to seal the grains with the paste and to bring out the grain of the wood creating a pleasant contrast between the top most surface and the veins of the wood. This is not that critical with light colored stains or bases where only the finish is applied with no stain.

- e. Apply a 2nd or 3rd coat depending on how dark you want the base. Allow a day at least between stain coats. Between each coat it's advisable to lightly sand the wood (in the direction of the grain) with 0000 steel wool to remove any raised wood fibers from the previous coat of dye stain. Be mindful to remove all the small steel wools and dust particles from the base before applying a second coat of stain. If not that will get into the finish coat and will stand out like a glue blob on a wing tip.
- f. The final step is the finish. Min-wax Polyurethane is a great choice for a high gloss or satin finish. Stay away from the

spray cans...it will take forever and get all over everything. Like stain, the top coats have many makers as well. The Min-wax Poly can be applied in several coats to build up a nice glass like covering and looks great. It will take at least two weeks to do it properly. Like the stain you have to lightly sand between each coat with steel wool. Each time a successive coat is applied the finish gets smoother and more glass like. As many as 3 to 4 coats will be needed for a high gloss finish.

- g. For a more satin (traditional furniture like) appearance I prefer a hand rubbed Danish Oil or hand rubbed paste wax. Usually 2-3 coats will be sufficient. The Min-wax Satin will work as well.
- h. Allow at least two days between finish coats. It doesn't hurt to wait and the temperature and humidity can prolong the curing times too.
- i. Once complete the base is done. A plaque or label for a final touch from the trophy stores can add even more professionalism to the display. It's a personal thing if you want to glue the model to the base. If you do I recommend two-part 5-minute Epoxy to glue it down. Especially for tanks and cars. Aircraft have such a small glue-able surface and I do not recommend it. Besides, not gluing the model and a label to the base allows you to use that base again later as the base for another model in a future competition.