

Using Model Builder Software to create believable building mock-ups

As we plan our model railroad layouts, one of the design considerations is the buildings that make up the industries and towns along our right of ways. These design elements must fit into the operational schema we've designed and must plausibly support the story we're trying tell. Most of us can't afford to buy the necessary structures right away, so we create stand-ins for the industries that we hope to build or buy in the future. Old cardboard boxes or taped together matte board don't really convey the best images of the prototype buildings that we hope to one day model. The purpose of this article is to discuss the many ways that Model Builder software can provide an easy to use, cost cutting tool to create believable stand-ins and/or plausible models for your railroad empire.

Getting Started

Below are some suggested materials/resources to help you begin to explore the myriad ways to use this software to fill your layout with the structures you need.

Model Builder - <http://www.modeltrainsoftware.com/model-builder.html>

Software Cost: \$45 for the mailed DVD Version, and \$39 for the download version

Add-ins: Brickyard, Graffiti, Advertiser, Sign Creator, Stained Glass, and Window Designer (downloadable)

The add-ins are \$12-34 each and can be purchased via download at:

<http://www.modeltrainsoftware.com/evandesigns-downloads.html>

Paper: I use matte finish legal size labels, even though Evans Designs recommends matte finish photo paper.

Printer: Evans Designs prints all of their paper model designs with an ordinary \$70 Inkjet Printer, Epson Photo printers are nice for detail. They recommend Matte Photo Paper for best image quality.

Base Material – I put a 1/2" base of foamcore on the inside of the building to help stabilize it and to add rigidity to the structure. I use white foamcore because you can paint it a concrete color for industrial buildings, or print wood floors and adhere them with a glue stick to simulate a different type of interior.

Walls and Roof – I suggest the 1/8" black Foamcore. It will ensure that your buildings are not see-through in case you want to add lighting. Further, if you install Tichy or Pikestuff windows and doors in your printed structures, the 1/8" foamcore is close to the same thickness as the offset of these products.

Low Temp Hot Glue – I use this because it helps me build quickly; one of the benefits of making buildings with model Builder.

Glue Stick – As an alternative to using self-adhesive labels, you can use a glue stick with matte finish photo paper. Recommend: Elmer's Extra-strength Glue Stick 0.88 oz.

Clear Lego Blocks – The blocks are great for creating square corners. I purchased a huge bag of them on Amazon for about \$20. Any square corner bracing will also work, e.g., foamcore triangles.

Bracing Material – I install bracing to help keep the structures square. I use pieces of foamcore or wood dowels to brace the sides and roof areas.

Markers – I use a black or brown marker to color the paper edges so they don't show a white edge on the models.

Lighting – Evans Designs is a great place to order your LED lighting. They have been testing and refining LED uses since 2006, and carry 5mm, 3mm, 1.8mm, Pico, and Nano LEDs. They offer them in AC, DC, or universal voltage so there's virtually no modeling application that can't be fulfilled using their LED products. They also carry just about any LED related wire, power supply, switch or bezel so that you can not only light your buildings, but you can build control panels as well. They even have a remote control module and multiple receivers for their LEDs. I know from personal experience that Dave Jamison (owner) will also custom build LED setups if you call him. All LED products come with a 2 year replacement warranty. They have sold more than 40,000 LED sets to date.

Assembly

1. Print your building design on a legal sized, self-adhesive label.
2. Select a piece of foamcore that will accommodate your building pieces. This is easy to calculate since the self-adhesive labels are 8 ½" x 11".
3. Peel off the barrier paper on the label that you've used to print your building parts, and carefully press it to the foamcore. You will usually get one chance to do this as the self-adhesive label glue is unforgiving if you don't press it flat on the first try. If used carefully, a hair dryer may work to loosen a misplaced label.
4. Once all parts are adhered to the foamcore blank, use a clean #11 blade to cut out the structure walls, roof parts, and the appropriately sized base.
5. Abut the first two wall sections so that the printed design looks accurate, and use Lego blocks or foamcore triangles tacked into each corner with low temp hot glue to hold them in place. Adhere them to the base with 1/8" dots of hot glue. Repeat for all walls. You'll likely need a ridge beam at the roof peaks, which can help later when you adhere the roof pieces to the walls.
6. Once the walls are adhered to the base, install your preferred bracing material so that the structure will remain square (unless it's a roundhouse or water tower, of course). Again, I use the low temp hot glue to secure the bracing.
7. Next, use a marker to color the edges of the roof pieces so that no white paper edge shows. Test fit your roof pieces just in case they need a bit of trimming, and then place dots of hot melt glue on the wall tops and ridge beam and set them in place. This is optional as you may want to design your roof pieces as removable.
8. Place the new structure on your layout as a much more plausible stand-in, or as a permanent model to support your model railroading scheme.

Tips

1. If you print your walls as one continuous piece (all sides)
Adhering the printed building label to a flat piece of foamcore may cause binding when you fold the walls. I've found that scoring the corners with first, and straight edge, and then a hot pointed soldering tip will compress the foam in the foamcore so that binding in the corners is minimized.
2. If you own Photoshop or another photo editor, you can create signs and other additions for your buildings and import them into Model Builder for placement on walls and roofs.
3. If you're using Windows 7 or later, the Snipping Tool can be used to copy doors, windows, and other building features for direct import into Model Builder.
4. There is a 16 video playlist about Model Builder on Youtube at this address:
https://www.youtube.com/watch?v=rui-0o_whPw&list=PLPu5omAhy4CiwXVdjOpmsnIV9DKELUx0g
5. There are pages of already designed, downloadable structures on the Model Builder website at:
<http://www.evandesignsmodelbuilder.com/>
6. The labels I mention above can be obtained in a 100 pack from Online Labels at:
<http://www.onlinelabels.com/Products/OL813WX.htm?search=OL813WX&st=s>
I ordered the Standard White Matte OL813WX (Laser and Inkjet) labels for \$22.95 plus shipping.
7. I used a Brother HLL8350CDW Wireless Color Laser Printer to print my buildings. I purchased it from Amazon for \$269.99.