

# A steam train sample project

Getting a jump on the 2017 Sign Invitational Challenge

By Dan Sawatzky

The Sign Invitational Challenge is happening again at the International Sign Association Show [April 19 to 22]. Competition will undoubtedly be friendly but very fierce. The theme for this year's event is "Sign Magic". MultiCam is making room in their booth for even more entries this year.

As always I got an early start. I knew our spring season would be busy with many large projects along with lots of business travel. The key to getting my project done on time was to sneak five or ten minutes of work on the piece a few times through each workday rather than large blocks of time. I didn't want to rush the project or have to pull an all-nighter (or three) at the last minute.

My project was inspired from my mural painting days. So often I heard spectators comment that the subjects of my murals often seemed to come right off the wall. My choice of themes was easy, because steam trains were my favorite subject for my historical murals. A painting by Norman Rockwell of a sign painter

will serve as inspiration for the sculpted figure.

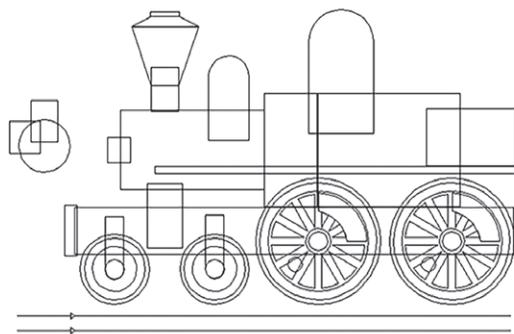
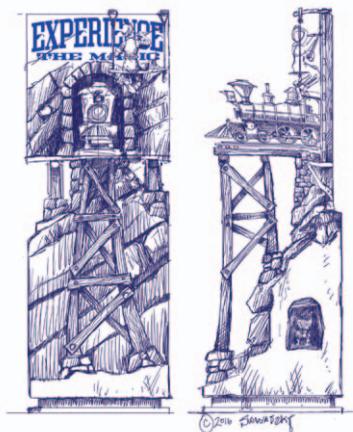
As with all of our projects I started out with a concept sketch. This sketch then was imported into EnRoute and used as a guide to create the vectors and 3D files needed for routing the Precision Board HDU board and also for cutting the plasma cut steel pieces.

The coolest thing about creating the files in EnRoute is that once I created the relief, I could use the warp tool to actually bend the locomotive. This was desired to create more movement in the piece. The trestle framework around which I will sculpt the wood timbers was also bent significantly.

Welding up the steelwork didn't take very long as everything fit perfectly because it was cut on the CNC. Then the fun began. Very little of the steel or routed HDU board will be visible when I am done, as I am hand sculpting the bulk of the piece to create the look I envision. I want it all to look hand fabricated, like a painting.

I use ten minutes on the train project to reward myself for doing a task I don't enjoy quite as much. Each day I look forward to spending at least some relaxing time sculpting or working on the project. At the end I'll have one more great-looking sample to display in the studio.

The piece has been in progress for about three weeks to date but is coming along nicely. Next issue I'll show more steps of the construction along with the finished piece. If you are attending the ISA show in Las Vegas this year please drop by the MultiCam booth to see it along with all of the other great entries which will be on display. **SC**



The vectors for the piece were done in EnRoute Pro using the sketch as a reference. I then created the 3D reliefs. I used the new warp tool to bend the reliefs, making the engine and tracks curve vertically a bit.

The idea for the piece came quickly and I scribbled it down using my pen and ink drawing style. The scale drawing was done on my iPad Pro using a stylus. I didn't sweat the details as I knew more ideas would develop as I went along.



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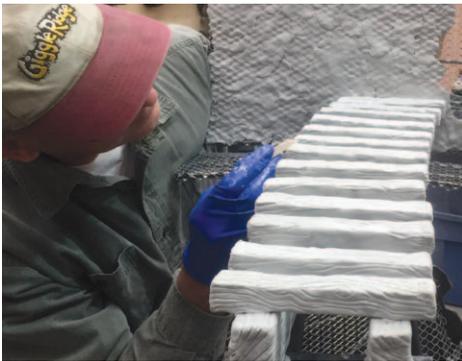
Once the pieces were routed and glued together I cut some wedge slices out of the pieces to bend the engine horizontally to add drama and action to the finished piece.



We cut the flat steel pieces on our MultiCam CNC plasma cutter. With CNC, everything fits perfectly. I never even had to use a level or square to assemble them.



A pencil rod frame was welded to the basic structure to form the bones. Expanded lath was tied to this framework to hold the sculpting epoxy skin.



I applied a thin coat of Abacadabra sculpting epoxy to each piece and then used a sharpened popsicle stick to create the woodgrain and other details. I worked on small areas in five- or ten-minute sessions.



After each step I test fit the pieces to make sure we stayed true to the original vision (or the current version). The wheels won't be glued in place until the painting is well under way.



I went online to search for some pictures of trains for reference. Rather than a specific train I modeled an era that I liked. No excessive detail or rivet counting was necessary. That's not my style. I wanted a sketch that captured movement.



As I sculpted I decided to have the train breaking through the sign panel instead of coming through a tunnel. I cut some angle-shaped pieces of corrugated plastic and coated them with epoxy. These were molded into the sign face at random angles. It was just the effect I was looking for.



There are still lots of sculpted details to come, along with all of the painting. But the piece is starting to look like the first concept drawing done a few short weeks ago.