



The Outside
www.theoutside.biz

The Outside merges creative design and cutting edge CAID technology to make products better, faster and cheaper for clients that include Mattel, Rubbermaid, Kodak, Fisher-Price, and Marvel.

Fast ROI – one job paid back the price of the ClayTools system

Kyle Houchens, owner and founder of The Outside, purchased the ClayTools system so he could efficiently add texture to models. Many of his clients have in-house rapid prototyping systems and use his models for focus groups, functional testing, and in some cases catalog photography. What started with a simple need to add texture to a drill grip turned into a revolutionary development system that has cut countless time and money out of his client's development cycles. With one job he paid for the price of the ClayTools system. His client was blown away. They were able to pull the fully textured part out of the SLA vat, sand it lightly, paint it and get feedback from a consumer focus group that proved the design was going to be successful.

Dramatic improvement in speed and quality of models

“ClayTools has dramatically sped up my workflow, improved model quality and detail, and since my business time is money, significantly boosted my bottom line,” says Kyle Houchens. “For me, SensAble and ClayTools have revolutionized the way I work, and have given me a significant competitive advantage.”

Kyle's work with the ClayTools system has evolved into a hybrid work flow utilizing ClayTools and Rhino™ to complete models faster and better than ever before. Following are examples of how Kyle used the ClayTools system to solve specific design problems allowing him to get the job done faster, better, and cheaper.

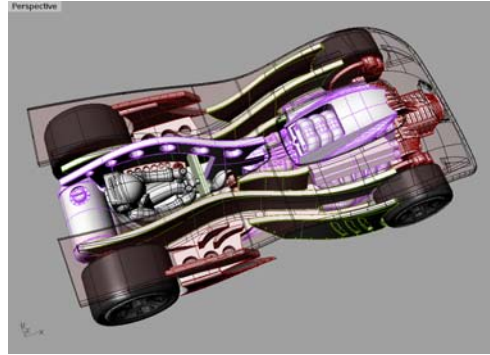


Blade

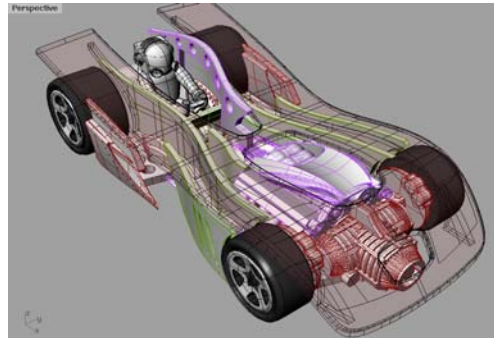
This model was on a very tight schedule. It had the added twist of needing a sculpted figure. Before ClayTools, I would have had to subcontract this piece of business, adding time and cost to the job, or cutting into my profit margin. Instead, I was able to rough out the figure quickly in Rhino and add the rest of the sculptural elements in ClayTools. The result was a 4-hour figure turnaround as opposed to days. The deadline was met, and all budget parameters were held.

– Kyle Houchens

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2



3



4



Figures 1 & 2: *Blade* Rhino models.

Figure 3: ClayTools digital clay model of *Blade* driver.

Figure 4: *Blade* diecast car.

VR

In this case the rear end of this vehicle had a complicated transition that was proving troublesome. Instead of spending the time to work through this in a NURBS environment, I got it close in Rhino, moved into ClayTools, and “sanded out” the visible seam. The result was a perfect transition in an important highlight area, in minutes, not hours.

– Kyle Houchens

Figure 1: Problem - highlight not tracking smoothly.

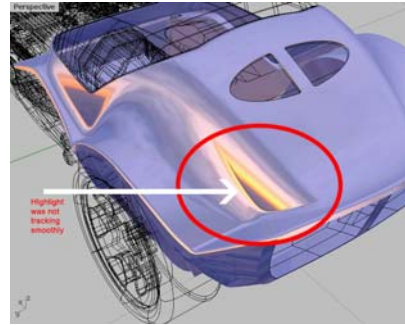
Figures 2 & 3: Rhino models used to “get it close”.

Figure 4: Rhino data with highlight break imported into ClayTools.

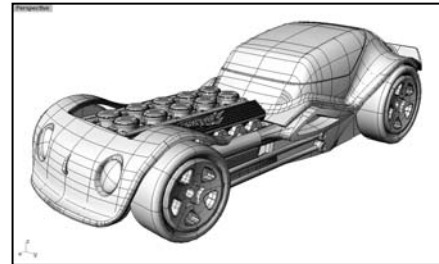
Figure 5: ClayTools digital clay model with highlight fixed to track smoothly.

Figure 6: VR diecast car.

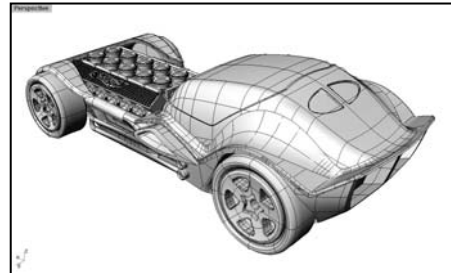
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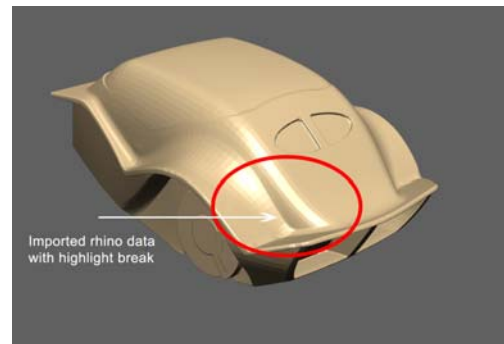
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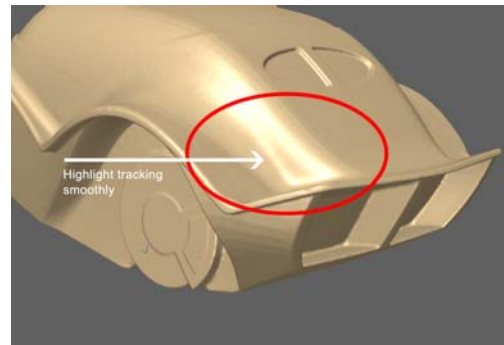
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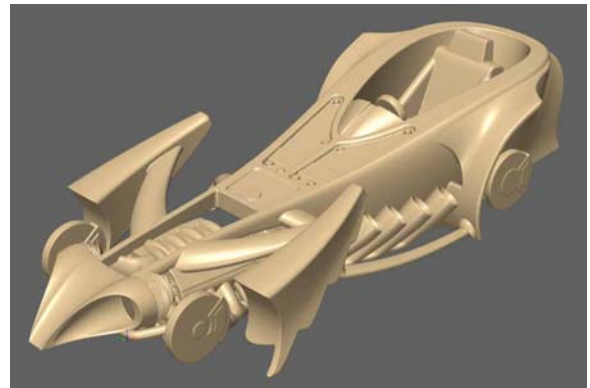
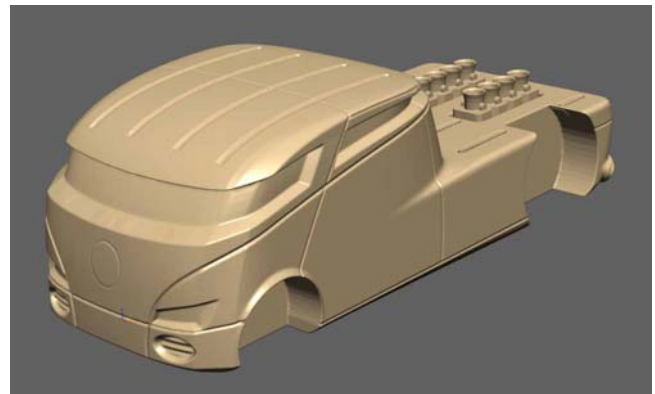
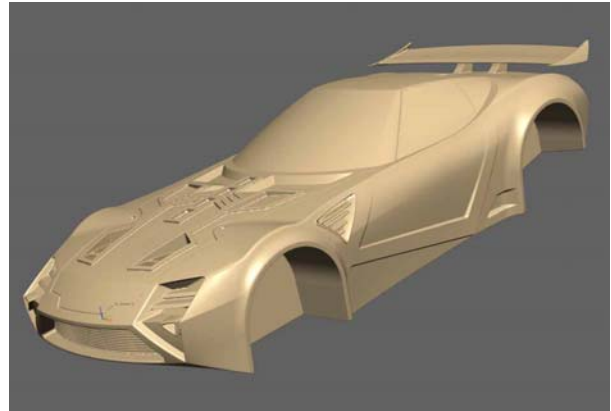
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Nerve Hammer, Qombee and Preying Menace (shown below from top to bottom)
These models show ClayTools (*models shown on right below*) used for its simplest time savings. I was able to rough out the models in Rhino (no trims, blends or transition surfaces), get client approval, and then add all fillets, transition surfaces, cut lines and textures in ClayTools. The files were then exported as fully textured STL files and sent to the client for SLA output. Average time for these models was 15- 20 hours. – Kyle Houchens



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