



SITUATION

Based on and inspired by a '54 Chevy, the Southern 408 looks and feels like an American classic. To help bring this classic street rod to market, Southern Motor Company partnered with Panoz Automotive.

Because the '54 Chevy is a legacy product, there was no CAD data available to use for design assistance. John Leverett, Director of Engineering at Panoz, knew that generating such data would require partners with expertise in the fields of 3D scanning and reverse engineering.



SOLUTION

Panoz contracted 3DScanCo to scan and reverse engineer the body of the truck and to capture the bolt-hole locations on the chassis. 3DScanCo used the Handyscan 3D to accurately scan and generate point cloud data for the body of the truck. In order to precisely capture the location and size of the bolt-holes on the chassis, 3DScanCo used the Konica Minolta VIVID 9i along with photogrammetry to generate data accurate to within 0.002 inches.



STL POLYMESH USED AS A BASIS FOR REVERSE ENGINEERING.

The resulting scan data was then reverse engineered using a combination of Rhinoceros and Geomagic. 3DScanCo modeled the entire truck body in smooth CAD surfaces, which could then be incorporated into Southern Motor Company's manufacturing process. The bolt hole sizes and locations were perfectly captured and modeled using Geomagic's feature extraction tool.



RESULTS





Southern Motor Company hopes to manufacture at least 1000 408s in its first year of production, 2008. Panoz saved at least two weeks on this particular part of the project as a result of utilizing 3DScanCo's services. The deliverable files left a highly satisfied client who will not hesitate to work with 3DScanCo in the future when the opportunity arises.

3DScanCo has proven to us that they have a true commitment to delivering the highest quality work. I recommend 3DScanCo to any business that is looking for a top quality and trustworthy team of engineers that provides reverse engineering and 3D scanning services.





John Leverett
Director of Engineering
Panoz Auto Development

TECHNOLOGY

-  Konica Minolta VIVID 9i
-  Handyscan 3D
-  Geomagic
-  Rhinoceros

TECHNIQUES

-  3D Scanning
-  Reverse Engineering

APPLICATIONS

- Bolt-Hole Locations
- Fit Engineering
- Legacy Parts