

SITUATION

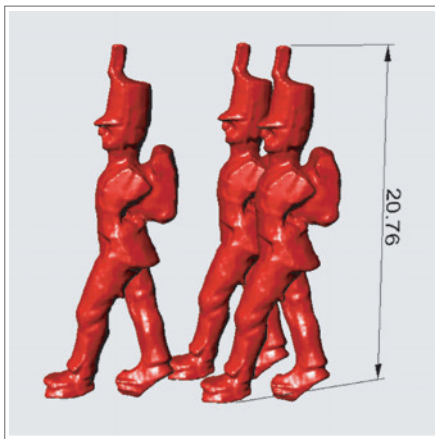
Miniature figurines have long been a source of interest for collectors and military enthusiasts. Historical battles can be completely recreated on a small scale with hundreds of figurines, each one representing a regiment or battle group.

1st Virtual Productions sought to recreate the entire Battle of Waterloo, this time with a 1:1 ratio of figurines to actual soldiers. In order to fit the thousands of soldiers in a reasonable area, 1st Virtual would have to scale them down to an unprecedented size. Wanting to simplify the scaling and figurine crafting process, 1st Virtual and 3DScanCo decided the best course of action would be to scan the figurines, scale them and use rapid prototyping.



COMPLETED 1:500 SCALE FIGURINES

SOLUTION



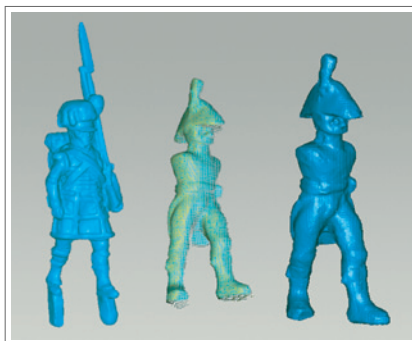
SCAN DATA

3DScanCo started by consulting with 1st Virtual to determine exactly what kind of data was needed, how it could be obtained and what the data would be used for. It was determined that each model of the 8-20mm figurines would need to be accurately scanned and triangulated into a watertight, STL mesh file.

By combining the Konica Minolta VIVID 9i with an Align-Rite 3D laser scanner, 3DScanCo was able to obtain very detailed and accurate data from each of the miniature figurines. Rapidform was then used to convert this scan data into an STL polymesh file. 3DScanCo optimized and cleaned this polymesh, resulting in an accurate digital model of the small figurines ready for rapid prototype manufacturing.

RESULTS

The data supplied by 3DScanCo has enabled 1st Virtual Productions to manufacture extremely small-scale rapid prototypes for the Battle of Waterloo. Impressed with the quick turn-around time, 1st Virtual continues to work with 3DScanCo for all their scanning needs.



I really appreciate your time and work, as always. You guys are spoiling me - I really can't explain enough how nice it is, after almost 2 years of delays, to work with a company like yours.

Thank you, again, for the beautiful work so far. I look forward to many future orders.

Bob Passamenti
1st Virtual Productions

TECHNOLOGY

- Align-Rite 3D Scanner
- Konica Minolta VIVID 9i
- Rhinoceros
- Rapidform

TECHNIQUES

- 3D Scanning
- Point Cloud Management

APPLICATIONS

- Small Scale Detail
- Rapid Prototyping
- Scaling