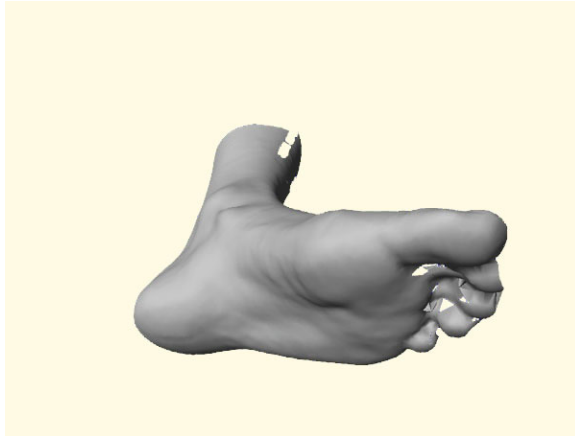


## Animation Case Study: Formthotic Advertising

*Foot Science International* commissioned *Montage Multi Media* to produce a thirty second looping animation showing the relationship between the human foot and their Formthotic innersole. It required a high degree of anatomical accuracy and would have been a very laborious modeling exercise had it not been for the Polhemus FastSCAN handheld laser scanner.



Original scans

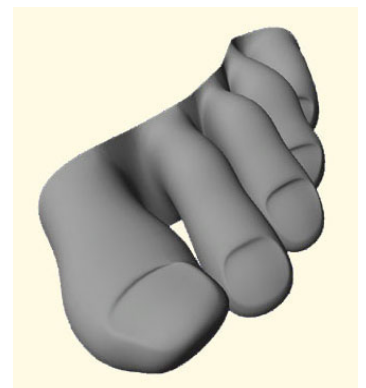
The scanner gave us an excellent representation of one of our staff member's feet in a scan that took only seconds. The setup time and experimentation was minimal. Although the scanner had some trouble in the crevices of the toe area, it produced a level of detail throughout the rest of the foot that was simply amazing. Veins, tendons and bones all came through extremely well.



The scan we took away with us had around 52000 polys (this was reduced from the much higher resolution original scan), but this was still too large for our needs and a little unwieldy for additional modeling. We used polygon reduction software to take the polys down to around 15000.

Polygon reduction

Using the scan as a guide, a set of new toes was generated for the foot using Lightwave's MetaNurbs feature. After removing the toes from the scan a bridge was then made between the new toes and the rest of the foot using the Skin command.



A toe transplant

Despite my initial concerns about the modeling, texturing was easily the most time-consuming part of the project, requiring maps on all three axes, seamlessly blended together.

The final animation was well received by the client and was used as part of an interactive kiosk at an international tradeshow in Germany and is also due to feature in a TV commercial.



Sample frames from the final 30 second animation

Modeling, animation and text by Peter Wain of **Montage Multi Media**, Christchurch, New Zealand, [www.montage.co.nz](http://www.montage.co.nz)