Creating Realistic 3D Models with
GHOST 3D's Scribe-iT and the MicroScribe 3D digitizer

For 3D design and modeling, digitizing solutions should optimally capture and control features into accurate, efficient geometry. Ideal 3D geometry provides superior output, coherent manipulation using less resources, and ultimately a final product of high quality and integrity.

In quest of the optimal combination of artistry and animatable geometry, artist/animators like Mitch Gates typically combine physical and computer modeling. Shaping a character from clay first, the artist is free to experiment with broad features and subtle details — without interrupting the creative process. Subsequent digitizing of the physical model gives the animator a highly detailed and precise digital model to manipulate.

Mitch Gates developed his 3D animation character “Bubba” using clay, the Immersion MicroScribe, and GHOST 3D’s Scribe-iT plug-in for 3ds max. Gates had already sculpted Bubba’s distinctive features in clay, cast the model in a silicone mold, and then digitized one half of the model’s head, using the MicroScribe and Scribe-iT software.

Gates used the Scribe-iT Create Mesh Strips tool to produce a complex polygon model on-the-fly as he traced the contours of the physical model with the MicroScribe. He then modified the digitized model with Scribe-iT and the included Surf-iT plug-ins in 3ds max. “The unique Create Mesh Strips tool allowed me to work with a direct mesh result, on which I could add and remove the MeshSmooth modifier at various stages of digitizing,” says Gates. The ability to flexibly edit and manage the creation history supported his creativity and his workflow. “This process helped me visualize the outcome before completing all the digitizing,” says Gates.

Gates cleaned up the resulting polygon mesh, mirrored it to generate the other half of his character’s head, and welded the two halves together. He then refined the mesh before hand-painting it and applying surface textures. “Working with the simple, yet digitized precision of the Scribe-iT mesh and then refining at render time enabled super-fast response and excellent results during animation,” says Gates.

As he continued to develop his character, Gates was able to collapse his model, and then convert it back to its digitized state to add more data any time he wanted to. The unique feature of the MicroScribe - Scribe-iT - 3ds max workflow proved important to Gates, because he explains, “I needed to bring Bubba into the virtual world, and still allow for small enhancements to the 3D model’s surface. The Scribe-iT plug-in for 3ds max allowed me to work back and forth between my sculpture, the 3D model, and the necessary max modifications I wanted to incorporate.”

Scrib-it Feature Highlights:

• Complete 3D digitizing and manipulation tools for design, industrial, and visual applications, including proprietary modeling system, powerful integration, user interface, and more...

• RPS™ Alignment System simplifies the re-alignment of digitizer, source, and 3D data, enabling the digitizing of multiple parts and large objects extending out of range.

• Dynamic tools/techniques: Use automatic or manual methods to construct Polygons, Splines, NURBS, 2D and 3D shapes, geometry, surfaces, and solid CAD compatible objects.

• Interactive manipulation, navigation, and visualization using digitizer probe with a variety of tools and controllers.

• Includes Surf-iT modeling kit for VIZ and 3ds max, providing powerful spline, patch, polygon, surface, and 3D modeling.

• Scrib-it offers top performance and value as one of the most flexible 3D digitizing and RE solutions available on the market.

• Supports MicroScribe digitizers in Autodesk VIZ, 3ds max, Maya Unlimited, Maya Complete, and others.

Scrib-it info: http://www.ghost3d.com/Scrib-it.htm

Microscribe info: http://microscribe.ghost3d.com