



**Featured FreeForm System User:
Oluf W. Hartvigson, Master Sculptor, Hartvigson Sculpture & Design**

Combining superior sculpting skills with the touch-based FreeForm® modeling system, Alaska-based Master Sculptor Oluf W. Hartvigson creates toys and collectibles for blue-chip clients such as Mattel/Fisher-Price, Hasbro, Creaa Promotion, and Sideshow Toy. Hartvigson's current line of collectibles includes figures from *Star Trek*® and *Lord of the Rings*® as well as Monty Python® and James Bond® movies.

Hartvigson officially opened Hartvigson Sculpture & Design in 1992. Since that time, he has acquired an impressive arsenal of design tools to match his increasingly impressive client list of companies all over the world. One of these design tools is the FreeForm system, which has become a key part of his digital production process.

Speeding the Process With the FreeForm System

Before incorporating the FreeForm system into his workflow process, Hartvigson used the traditional, often time-consuming, method of modeling with industrial styling clay and wax. Using clay and wax, his core modeling time for smaller toys was about two weeks, and up to two months for very large toys. Then Hartvigson incorporated the FreeForm system into his production process. Just three days after he first picked up the PHANTOM™ Desktop interface, Hartvigson completed this model of *Star Treks'* Spock character.



Spock FreeForm model



Spock wax output

"It was extremely easy transitioning from traditional methods to the FreeForm modeling system," Hartvigson says. "It remained an artistic experience yet I was sculpting in a digital 3D domain. The sensory response makes the other 3D form building software pale by comparison. Using the FreeForm system you receive a complete tactile experience." Plus, by working in a digital environment, Hartvigson reduced his overall core modeling time by more than 50%.



Oluf models "Gorn" with the FreeForm system

The FreeForm system's familiar modeling and sculpting tools provide Hartvigson with an easy platform to create even the most detailed designs. Using tools such as Smudge, Tug, and Deform, Hartvigson is able to quickly create and modify the unique features of such characters as *The Simpsons*® and *Star Trek*® collectibles.

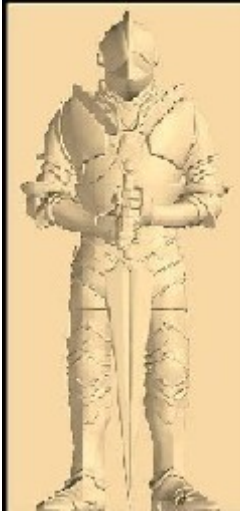


Kirk from Star Trek



Homer from The Simpsons

After only three weeks of working with the FreeForm system, Oluf created the highly detailed "Armor" toy model for his client Mattel/Fisher-Price. Larry McCauley, Sculpting Manager for the Boys Toys Dept. at Mattel/Fisher-Price commented, "Oluf is definitely one of Mattel's very talented sculpting vendors. Here at Mattel/Fisher-Price, in the Boys Sculpting department, we also have found the FreeForm system to be a very effective tool on many levels. FreeForm continues to blend the art of sculpting and toy engineering intuitively."



Hartvigson has not only reduced his modeling time, he is better able to meet tight deadlines and to streamline approval cycles with numerous projects simultaneously. He saves significant time by providing digital FreeForm files, in minutes, to clients for progress reviews and final approval. As reviews take place, Hartvigson quickly makes changes based on client feedback digitally instead of physically. As a result, the model is only produced after the final review. This eliminates the need to next-day-air ship physical prototypes back and forth for review. The FreeForm system also provides Hartvigson's clients the option to output their own physical models. For their part, his clients enjoy the flexibility and responsiveness of working with a digital process.

By leveraging the FreeForm system as part of his design process, Hartvigson continues to improve productivity and decrease the time-to-market cycle for his clients all over the world.

**"Armor" model for
Mattel/Fisher-Price**

More about Oluf W. Hartvigson

Hartvigson received a BFA from Boston University and an MFA in sculpting from the University of Michigan. With 16 years experience sculpting in all scales, including monumental, Hartvigson has produced a wide range of products, including toy and promotional items, medallion art, ceramic doll heads, ornaments, and fine art. His work has won numerous awards, including Lee's Action Figure News & Toy Review: Best Action Figure 8+ inches and 24th best Action Figure of all Time (*ToyFare* October 2000) for Creature From the Black Lagoon. Hartvigson speaks English and is fluent in German. He can be reached at owhartvigson@alaska.com.

©Copyright 2003, SensAble Technologies, Inc. All rights reserved. FreeForm, PHANTOM, 3D Touch and SensAble are trademarks or registered trademarks of SensAble Technologies, Inc. Other brand and product names are trademarks of their respective holders.