



SUMIT

PROJECT: Sumit
CLIENT:
DATE: 07 January 2009
DURATION:



PROJECT DETAILS

1. When the client approached you how did you react to his enquiry?

We enjoyed working with a very creative client and for a change a non-engineering project. The project required a lot of feedback & recommendations and discussions with the client, both during the quoting stage & as work progressed, especially as rapid prototyping was a new technology to him.

2. What method of manufacturing did you suggest to the client?

The Gods-Ananta, Nandi and Shiva Lingham, all required a very highly polished paint finish. Due to this we choose to produce SLA parts, which gave us the detail and a surface that is much easier to finish ready to accept paint. On Shiva Lingham, a contrast was also required between the main body and the detail items such as the shields and eyes, so we produced the body in sls and the finer parts in Sla. With Shiva Nataraja, the model had to be sls due mainly to its complexity and size. The size of the model dictated that we break it down into smaller components which is ideal for SLS due to the way it is self supporting and fully 3D stacking capability, which becomes more cost effective the more parts you fit into the build chamber.

3. Were there many obstacles to overcome in the production of the models?

A great deal of time was spent separating the cad model into parts so that we could take into account weight, size (each part had to fit in whatever build platform it was destined for) and complexity to ensure that the final model was as strong as the process would allow together with thought on how the models could be transported from site to site. Some parts had to be modified to give joints, which were not visible when assembled, we then engineered separate parts and mounted them onto the body with pins to help strengthen these joints. We also hollowed out some parts to save on weight. We also provided some made to measure packing crates to allow the exhibition to be safely moved from venue to venue.

4. Were you happy with the final outcome?

Steve Willmott (being a perfectionist and always striving for the best possible model) said that in hindsight we could have suggested simplifying some of the smaller detail to make them stronger, a good example being the snake wrapped around Shiva Nataraja, each segment is attached to its neighbour with a 'universal joint' once built we could see that we should have made them as solid pins as they were quite weak and the detail isn't really visible, leaving us with a bit of extra strengthening work to do.

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