



## Goodwood Festival of Speed Structure

**CAPITA BOBROWSKI :**  
SuperSTRESS/SuperSTEEL

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### The Project

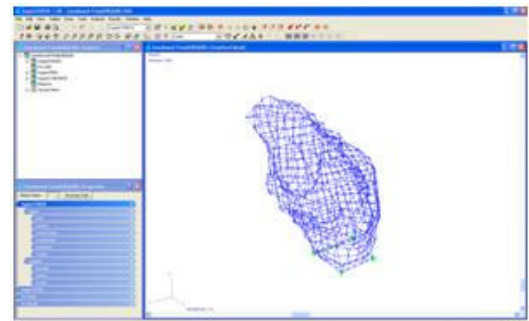
The central display for the 2008 Goodwood Festival of Speed was a design inspired by sculptor Gerry Judah to encapsulate the rugged face of the display's 2008 sponsor, Land Rover.

Bringing Gerry's vision to life was the team from Capita Bobrowski who with the assistance of fabricators Littlehampton Welding, overcame tight timeframes and a challenging design to deliver an awe-inspiring sculpture enjoyed by everyone who attended the Festival.

### The Challenge

The primary challenge was time: the sculpture had to be designed, drawn, detailed and analysed, and built within five months. Underpinning its successful and timely completion was the use of superb software and great teamwork.

The vision was to create a steel rock with a difference – it had to be transparent so that VIPs could see through it to the track.



The sculptor began with some free-hand sketches which the Capita team translated into 3D models. The shape was sliced into three XYZ plane lines with one horizontal and two vertical axes at 90 degrees to each other. A wire frame model of the centre lines was then created and once the artist and engineers all agreed on the basic form, it was time for the engineering process to begin in earnest using Graitec UK's SuperSUITE.

A great time saving tool was the DXF translator within SuperSTRESS. The blueprint was easily imported from design software without any loss of integrity so that the Capita team could begin reviewing section sizes, loading, material properties etc. with ease.

After liaising with the Graitec team about the complexities of the project, the Capita team was delighted to receive brand new functionality in the form of the beta testing version of SuperSTRESS containing new 3D solid-body modelling functionality which allowed a full 3D rendered view of the model. This graphical depiction made checking that every member was in the right orientation, clear and simple.

The process of refinement between sculptor, engineers and fabricators went on for six weeks and timeframes were so tight that steel work was ordered *before* the finalised connection designs. What really sped up the process was functionality within SuperSTEEL that facilitated the easy export of drafts between engineers and fabricators with all revisions highlighted. This feature enabled Little Hamptons to respond within the space of an hour and with up to five revisions a day, made the deadline achievable.

According to Capita Director John Cutlack, 'Without computers this structure could not have been built – sanely! SuperSUITE follows an intuitive, logical process that structural engineers love and pick up with ease because it has been built by engineers, for engineers.

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