

CASE BRIEFS

## A precision engineering firm needed confirmation of an in-house approach

A precision engineering business wanted NAG to verify their in-house algorithms. Routines from the NAG Library were shown to give more exact results. The work enabled the client to offer their customers a more accurate service.

The client was a precision engineering company who provide alignment and measurement services for complex manufactured components and for production equipment. They needed to use numerics to verify properties of physical components and machines. This is done by using applications that work on data points actually measured from metal surfaces.

They came to NAG for expert help to verify that the software that they had created correctly translated and rotated surface points thus enabling them to test properties including moments of inertia. NAG found that they had developed an adequate solution but that it could be made more accurate.

NAG was able to use existing routines from the NAG Library, providing singular value decomposition and optimization techniques, together with a little additional code, to provide more exact results in the required formats to fit with the rest of the client's processes. This allowed the client to offer a more valuable service.

**Results matter. Trust NAG.**

