



Precision laser scanning survey for museum venue

Survey data required for space-planning and asset management at the famous Thursford Collection Steam Museum and venue of the Christmas Spectacular.



Survey case study by
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Precision laser scanning survey of historic steam engines and museum exhibits

Multi-purpose venue Thursford approached CADS to carry out a precision laser scanning survey in order to produce accurate drawings of their entire site for use for space planning and asset management purposes.

Thursford comprises several buildings of varying construction and vintage, including a museum of steam engines, organs and fairground rides, a wedding venue, Victorian school and an 'Olde Worlde' shopping village. Many historical, mechanical assets are on display in the venue's main building which

also hosts Thursford's famous Christmas Spectacular entertainment show. Festive decorations are in place all year round and a high degree of care is needed when working around the exhibits.

Some of the assets are undergoing preparatory maintenance operations for the coming season, so this, along with reduced visibility because of the limited light in the venue, made the exercise a challenge.

Powerful laser scanner overcomes reduced lines of sight

The range of large and unique assets within the venue, combined with the density of their distribution and overall layout, meant it was a challenge to obtain the necessary lines of sight for effective and accurate measurement. To overcome this the team used laser scanning technology.

The versatility, power and range of the Leica P40 high definition laser scanner supported by Leica Cyclone software meant we overcame the challenging environment.

80,000 sqm survey accuracy delivered with a control network

The accuracy of this approach was underscored by the implementation of a control network, both externally around the various buildings and internally through the extensive areas of exhibits and entertainment facilities in the main complex.

CADS surveyed approximately 80,000 sqms over the course of a week, avoiding disruption to the many operational activities that took place.

Iain Tubby, Principal Surveyor, CADS:

“Our surveyors adapted their skills for the unique setting of the Thursford Collection. The accurate drawings of the venue’s entire floor area and layout will enable the museum owners to effectively manage the buildings and plan the space for displays.”



Ready to get your project started?

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