

# Deri Jones & Associates Ltd

3D Laser Scanning|Marine Structures|3D CAD|3D Visualisation



# LS880 Edward Richard

## Summary

Deri Jones & Associates Ltd and Geospatial Survey Solutions (GSS/DJA) carried out a one day survey on a grade II\* listed former



ecclesiastical college in Mid Wales. Comparing the accuracy of laser scan surveys to an existing 3D model developed techniques used for future projects in photo texturing and modelling from 3D scan data.

## History

Founded by Edward Richards in 1734 as a grammar school aimed at training young clergy, the existing building dates from 1812.



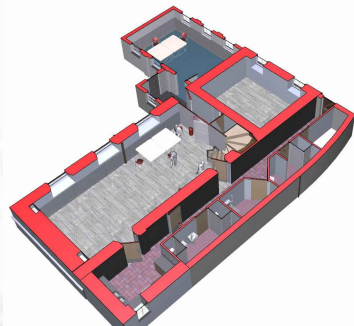
Constructed in the grounds of St John's Church, Ystrad Meurig, Mid Wales, the grade II\* listed building continued as a school until 1972, then becoming a church and village hall until it fell in to disrepair in 1992. In 2003, Aberystwyth based architects Lionel Curtis and Rory Wilson were asked to oversee the restoration of the building. As part of their design process, DJA produced a number

of visualisation images for the project and the restoration was successfully completed in 2005. The Edward Richard Centre now acts as a centre for this rural community with a diverse timetable of events, from line dancing to Welsh language courses.



## Site Survey

As part of the investigation for creating visualisation images of the building, DJA carried out a detailed photographic survey of the building in 2004 and created a 3D model of the proposed renovation



in Solidworks and Rhino in preparation for creating computer generated images. Following the success of the project, we re visited the site with the Faro LS880 laser scanner and scanned the interior to provide a comparison between the 3D model created using traditional techniques and the possibilities of laser scanning. Spending a day on site, we recorded sufficient full colour scan data to act as a base for modelling and creation of textures for visualisation models.

## Processing

Working with Faro Scene, we cleaned and registered the twelve scans and created a



Pointools file from them. This was used to compare with the original 3D CAD file we had created for the visualisation work

back in 2004 from the survey drawings. Test examples of photorealistic textures were created from the scan data and it acted as a useful test base to develop many of the 3D modelling and texturing techniques we have used on other projects such as Holly Lodge and Nant Eos.



If you have any queries about this project or would like to discuss a possible project, please contact Deri Jones on +44 (0)870 762 0089 or [info@djaweb.co.uk](mailto:info@djaweb.co.uk)

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