



## Pointools Software Helps Time Team Archaeologist Reveal Jersey's Past 28<sup>th</sup> March 2011



Channel 4's flagship programme Time Team, which has been uncovering the archaeological mysteries of the British Isles since 1994, has used sophisticated 3D laser scanning technology to create high definition fly-through animations. A survey team from Digital Surveys captured hundreds of millions of millimetre accurate measurements to map the development of advanced fortifications around Mont Orgueil Castle in Jersey. Processed using Pointools software, the survey team was able to create a series of high impact 3D images complete with advanced lighting effects which featured in the final broadcast.

"Initially the producers thought the 3D laser scanner would only be used to record measurements to help the team make decisions, explain their discoveries and support any conclusions they may come to," commented Ben Bennett, Director of Digital Surveys. "That's because they had already employed their own 3D modeller to recreate the castle. However, after viewing the point cloud model captured during the first day's survey work, the team agreed that it's visual quality and clarity was far superior to the manual modelling efforts. As a result, the visualisations and animations created using Pointools software were used instead, greatly enhancing the show's visual appeal."

Due to a tight production schedule Digital Surveys was given just three days on site to measure the whole castle. This was no mean feat; just as the challenging topography posed difficulties to would be attackers centuries ago, it also created technical challenges for the survey team. Using a Leica Scanstation 2 scanner, eighteen 360 degree scans were completed to record the external defensive walls (the Upper Grand Battery),



the internal middle wall, the keep roof and internal rooms. Afterwards, the data was cleaned to remove noise before being imported into the Pointools software.

“Pointools is the proven market leader for point cloud visualisation and animation and was therefore the obvious choice for creating ortho-rectified images and fly-through movies,” continued Bennett. “The software is capable of handling billions of points seamlessly and the point cloud model can be sliced and filtered to create accurate cross sections. Using Pointools Edit, animations are just as easy to produce; the built in wizard option streamlines the set-up process for creating stunning fly-throughs.”

“We were very pleased with the high quality 3D model created by Digital Surveys using Pointools software,” commented Time Team Director and owner Tim Taylor, “and we look forward to using 3D laser scanning technology on the show again.”

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**Note to editors:**

The **Pointools** suite of software leverages the high-performance Pointools POD format for working with the largest point cloud models inside the broadest range of applications. Used by architects, engineers, contractors and surveyors to work with 3D laser scan data, Pointools software supports multiple workflows including Art & Entertainment, Forensics, GIS & Mapping, Infrastructure, Manufacturing, and Security & Defence.

Pointools offerings include stand-alone applications, CAD software plug-ins, and a third-party development platform for point cloud processing and visualisation; uniquely enabling point cloud model reuse across Bentley, Autodesk, Safe Software, Rhino, and SketchUp applications without time-consuming translation.

**Mont Orgueil** is a castle in Jersey overlooking the harbour of Gorey. Constructed during the early 13<sup>th</sup> Century the fortification was the primary defence of the Channel Island until the development of gunpowder rendered the castle ultimately indefensible. Plans to demolish the structure in 1600 were rejected by the then Governor of Jersey, Walter Raleigh, with the words “twere a pity to cast it down”.



**Time Team** is a British television series shown on Channel 4 since 1994. Presented by Tony Robinson, who aims to present the discoveries, decisions and conclusions from the specialist team in easy to understand – even to the uninitiated – terms. Each episode features an archaeological dig at a site usually in the UK and often suggested by a member of the public. Excavations are not just undertaken to provide entertainment for viewers. The programmes host claims the archaeologists involved with Time Team have published more scientific papers on excavations carried out in the series than all British university archaeology department put together during the same time frame.

**Digital Surveys** offer a complete surveying service with an emphasis on quality and a reliable, efficient project turnaround from instruction to completion. Survey teams are comprised of qualified professionals equipped with state of the art hardware, software and firmware to facilitate the efficient, timely and reliable completion of surveys and processing of data.