

# CI11032: Creating Surface Models from Point Clouds

Presenter: Ben Coady

Title: CAD Technician

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# Introduction to your speakers

**Key Speaker: Ben Coady**

**Co-Speaker: Chris Bargent**

# Key Speaker: Ben Coady

- Transport CAD Technician for Ramboll UK
- 2 years experience in Transport and 3 years in a Mechanical Discipline
- BTEC Level 3 in Mechanical Engineering & HNC in Civil Engineering from Southampton Solent University
- Previous Scholar of the Institution of Civil Engineers
- Been involved in both large and small projects
- Surface Modelling Champion



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# Co-Speaker: Chris Bargent

- Technical Associate with Ramboll UK
- Manages a Large Team of Highly Skilled Technicians
- 25 years experience in delivering large infrastructure projects and high profile architectural bridges
- Extensive experience in numerous software platforms and expert in CAD and BIM management, automation, customisation and application connectivity



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# Class summary

- This class will show you how to convert scan data into a usable format and manipulate it. It will show you how to import that data into AutoCAD 2016. This class will also show you how to create a surface model of existing elements and how to further work with the surface model within Autodesk Inventor.



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# Ramboll in brief

- Independent engineering and design consultancy and provider of management consultancy
- Founded 1945 in Denmark
- 12,300 experts
- Over 300 offices in 35 countries
- Significant presence in the Nordics, North America, the UK, Continental Europe, Middle East, Asia, Australia, South America and Sub-Saharan Africa
- EUR 1.1 billion revenue

- Services across the markets:
  - Buildings
  - Transport
  - Planning & Urban Design
  - Environment & Health
  - Water
  - Energy
  - Oil & Gas
  - Management Consulting



# Ramboll Geographical footprint



# Agenda – Learning Objectives

## Surface Modelling from Point Clouds

1	10mins	Converting scan data into a format usable and then manipulating that data using ReCap
2	5mins	Inserting point clouds into AutoCAD 2016 and a brief look at visual settings
3	10mins	Creating 3D geometry (surface model) using the existing Point Clouds
4	10mins	Adding additional elements to the surface model in Autodesk Inventor
5	Rest of Session	Q & A

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# Key learning objectives

At the end of this class, you will be able to:

- Understand the process of converting original scan data into a useable format and manipulate the data.
- Be able to import data into AutoCAD 2016
- Be able to create a surface model of existing elements.
- Be able to import a surface model into Autodesk Inventor for addition of proposed elements



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# Feel Free to Tweet!!

- If you think of any questions and/or points to note during the presentation please tweet **@Ben\_Coady**



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- Please note the full presentation will be available for download after AU2015.
- I'm looking forward to meeting you all on Thursday 3<sup>rd</sup> December @ 1pm



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# Thank you!

## Any Questions?

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