OBLIQUE IMAGERY AT ORDNANCE SURVEY

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(with major contributions from Dave Capstick & Jon Horgan)
THE BRAVE NEW WORLD OF OBLIQUE IMAGERY
SOME MORE UP TO DATE OBLIQUE IMAGERY
Image credit: Leica Geosystems
SUNNY
BOURNEMOUTH
A view from Acute 3D
Modelled in Acute 3D, viewed in Terra Explorer
The Bournemouth International Centre
OS building, oblique view (Leica RCD30 penta)
OS building, as a 3D mesh (Agisoft Photoscan)
OS building, modelled in Tridicon
SOME POINTS TO CONSIDER
Some questions

• What format do users need?
  • The original images
  • A bespoke image viewer
  • A textured mesh model
  • A point cloud
  • A “colourized” point cloud
  • A 3D city model
  • All of the above
  • …or none of the above?
Some questions

- Do we need oblique imagery?
  - To generate the content we require
  - Is nadir (wide angle) imagery good enough?
  - Can we integrate data from multiple systems and sensors?
Some questions

• How should we store all this data?
  • In indexed flat files
  • In a relational database
  • In a NOSQL database
  • In a linked data database
  • Locally, in a server farm, or in the cloud
Some questions

- Can we generate user-required content?
  - From the images
  - From a textured mesh model
  - From a point cloud
  - From a 3D city model
WHAT CAN WE DO WITH OBLIQUE IMAGERY?
3D building extraction
Building Classification
3D buildings - Tridicon
HOW OBLIQUE SHOULD WE GO?
FINAL THOUGHT
Final thought

- Given all this data, from nadir imagery, oblique imagery, lidar, mobile mapping systems, UAVs, terrestrial scanners and cameras...

...How are we going to manage it all in one place?
Thanks!