



DATA CAPTURE AND EXPLOITATION

10 FEB 20

INSTRE / 8X INNOVATION CONFERENCE

WO2 PETER EGAN FINSTRE

QMSI CONSTRUCTION 36 ENGINEER REGIMENT

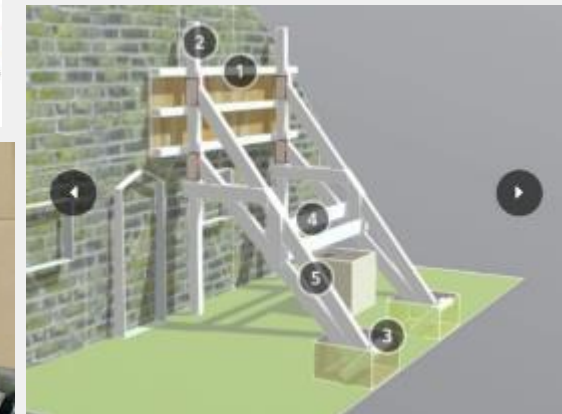
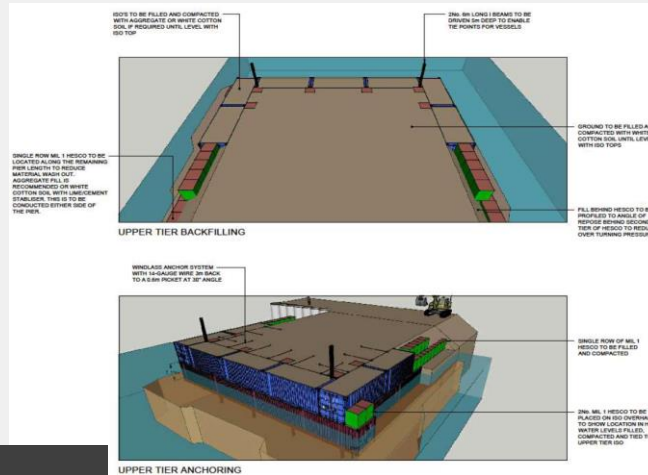
SCOPE

- 36 Engineer Regiment and an age of innovation.
- The vision and approach.
- What is photogrammetry.
- Experimentation and implementation.
- Failures, limitations and successes.
- Next steps.
- Questions



36 ENGINEER REGIMENT AND AN AGE OF INNOVATION

- Additive Manufacturing.
- 3d design and modelling.
- Photogrammetry.
- Virtual Reality.
- Apps.



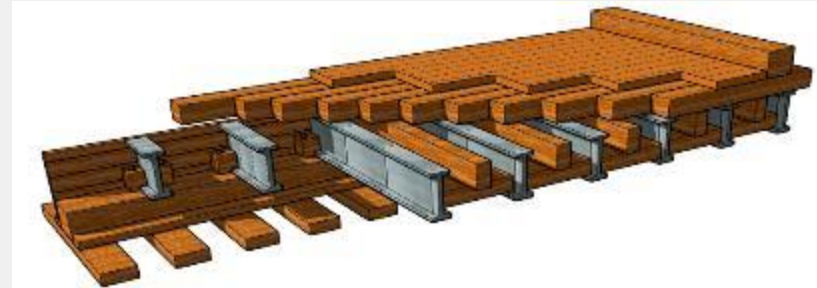
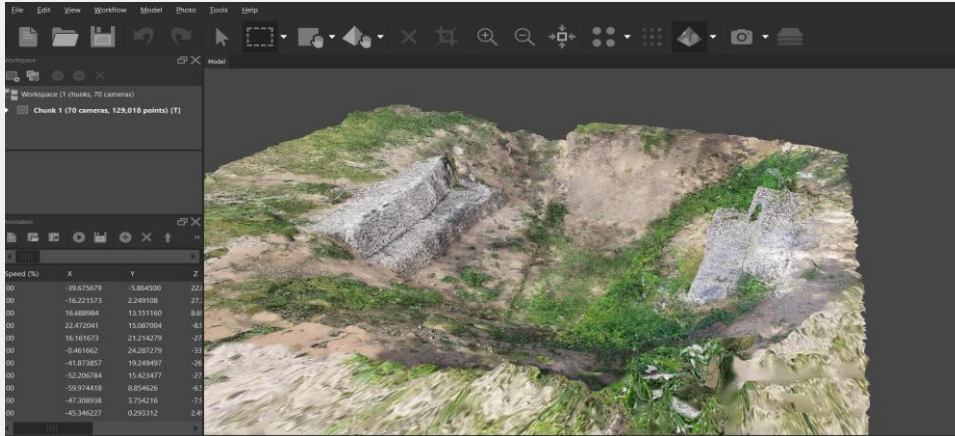
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THE VISION AND APPROACH

- STEM



- Understand the technology.
- Conduct case studies.

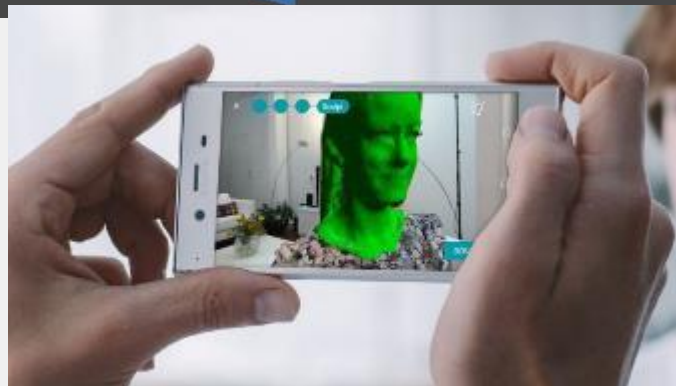
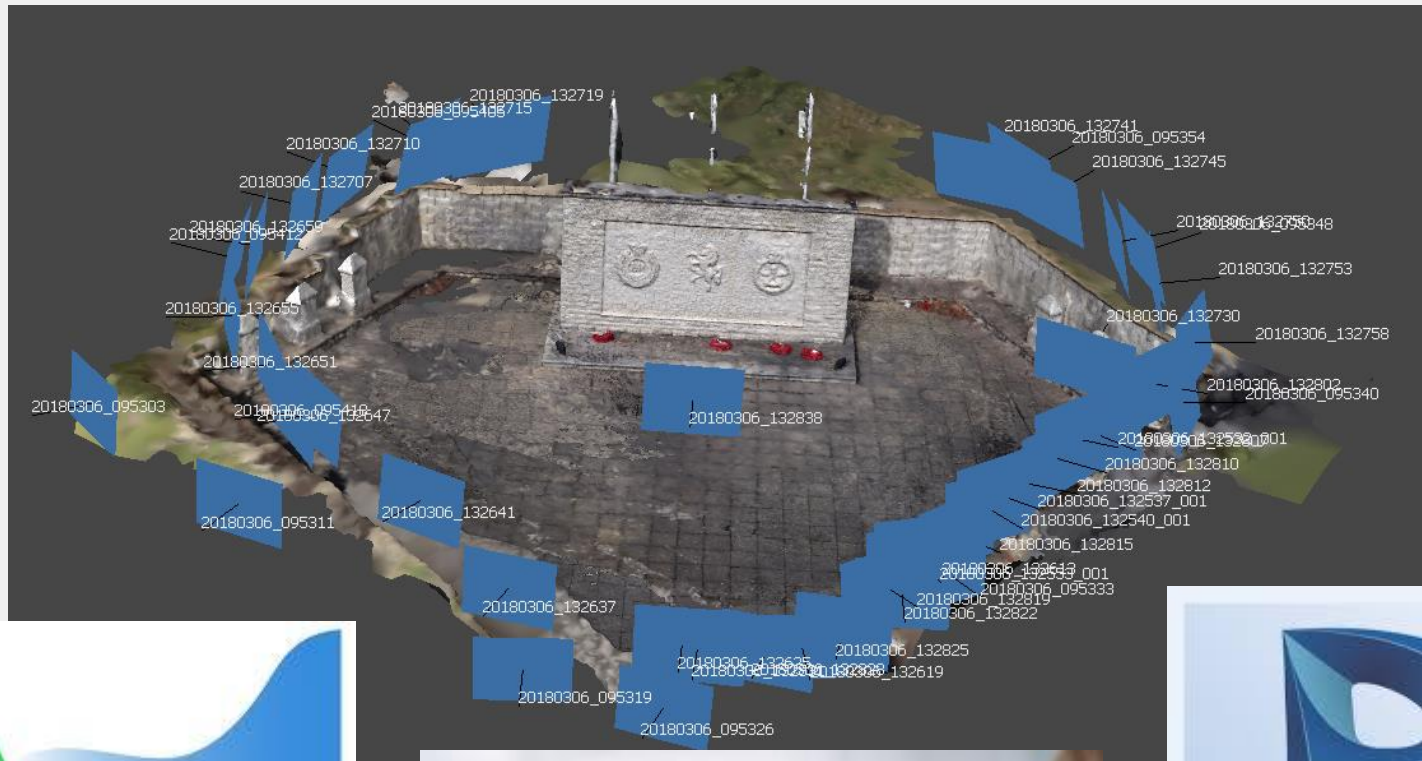


- Small scale test projects.
- Review and evolve.



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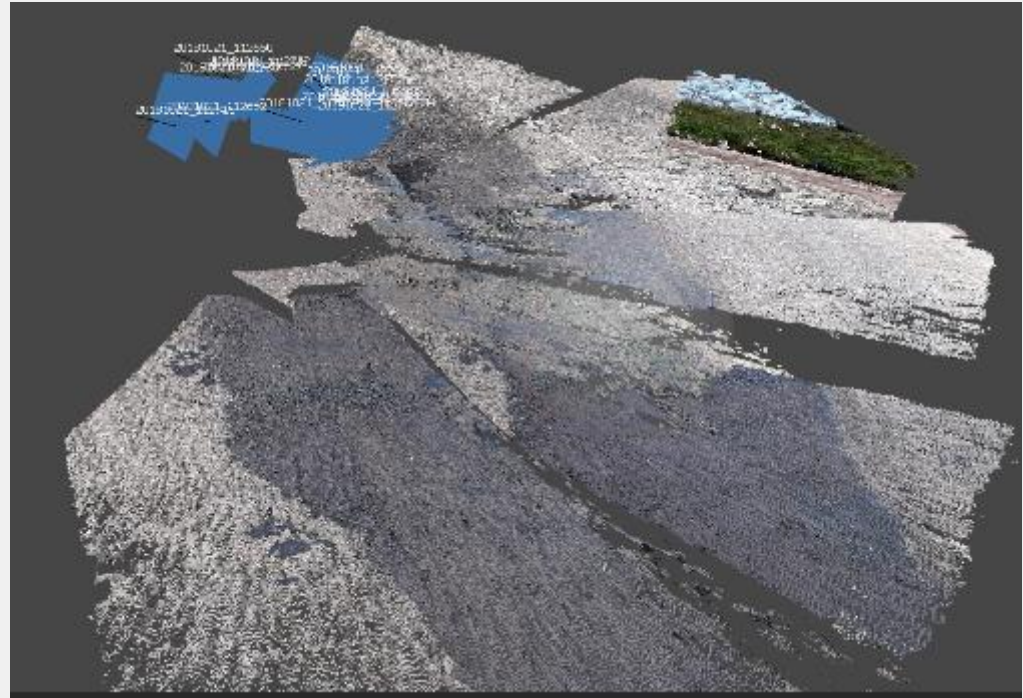
WHAT IS PHOTOGRAMMETRY



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EXPERIMENTATION AND IMPLEMENTATION

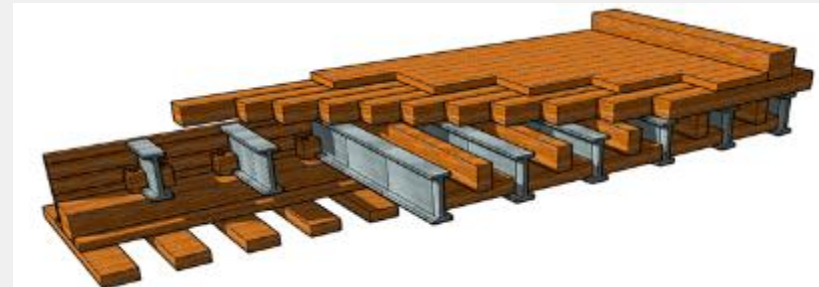
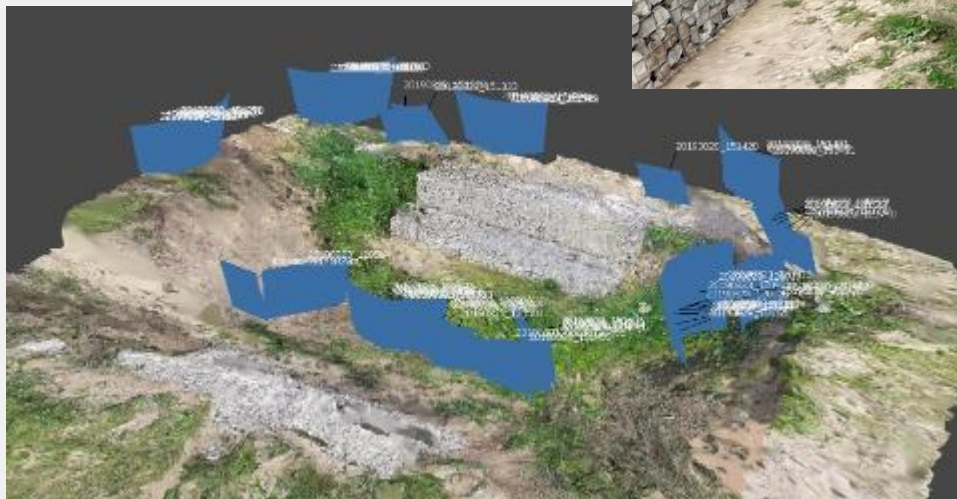
- Malakal Runway.



MALAKAL RUNWAY INSPECTION FAULT MAP



- Bridge Gap.



- St Catherine's Chapel.

One man operation 30mins on site, 2hrs processing time, 74% time saving overall.



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EXPERIMENTATION AND IMPLEMENTATION

- St Andrews Raking shore.



 **SketchUp**  **Sketchfab**

<https://skfb.ly/6ONCB>

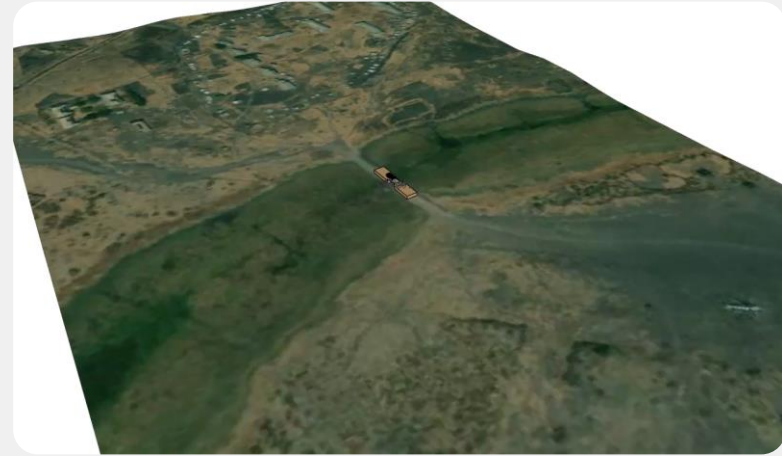
FAILURES, LIMITATIONS AND SUCCESSES

- Understanding the limitations:
 - Poor lighting.
 - Camera quality 18mp min.
 - Distance from object.
 - Cluttering near objects.
 - Focus length.
 - Textures/ landscape.
 - Editability of models.
 - Flexibility of software.

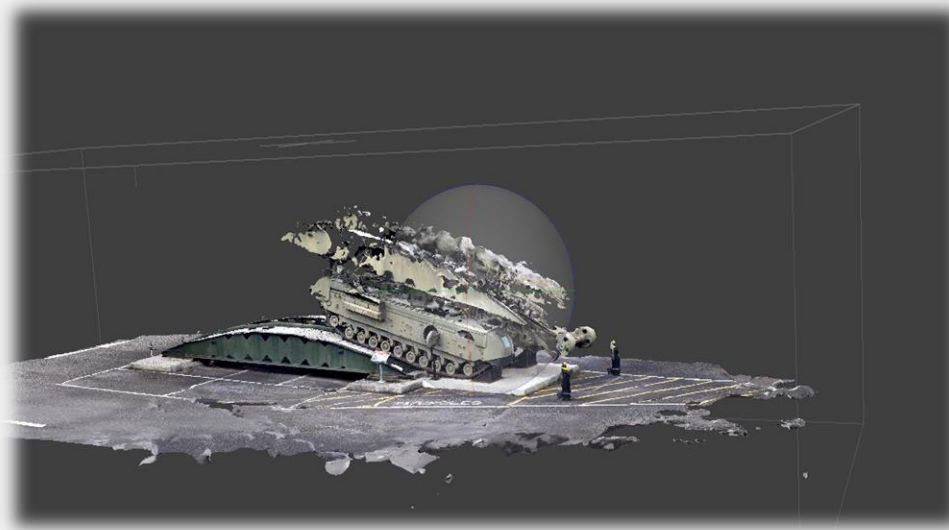


NEXT STEPS

- Equipment up lift, with professional licenses.
- Expand our knowledge:
 - Collaboration with wider partners and trades.
 - Linking with industry and institutions.
- Experimentation using recce personnel.
- Learn from our failures.
- Look forward: structural analysis.



QUESTIONS



- Questions

