

Oceaneering Visual Metrology

Using Advanced Subsea Photogrammetry to Improve Inspection Data Collection

Machine vision gives robotic platforms the ability to **see, analyse, and act.**



Leveraging **Oceaneering's existing services & experience** in IMR and Survey, while **incorporating technologies** to **drive operational efficiencies & results**.



Reduce specialist equipment required for operations



Improve operational efficiency & leverage remote capability



Reduce carbon footprint of operations



Improve data delivery to clients utilising Oceaneering data management solutions



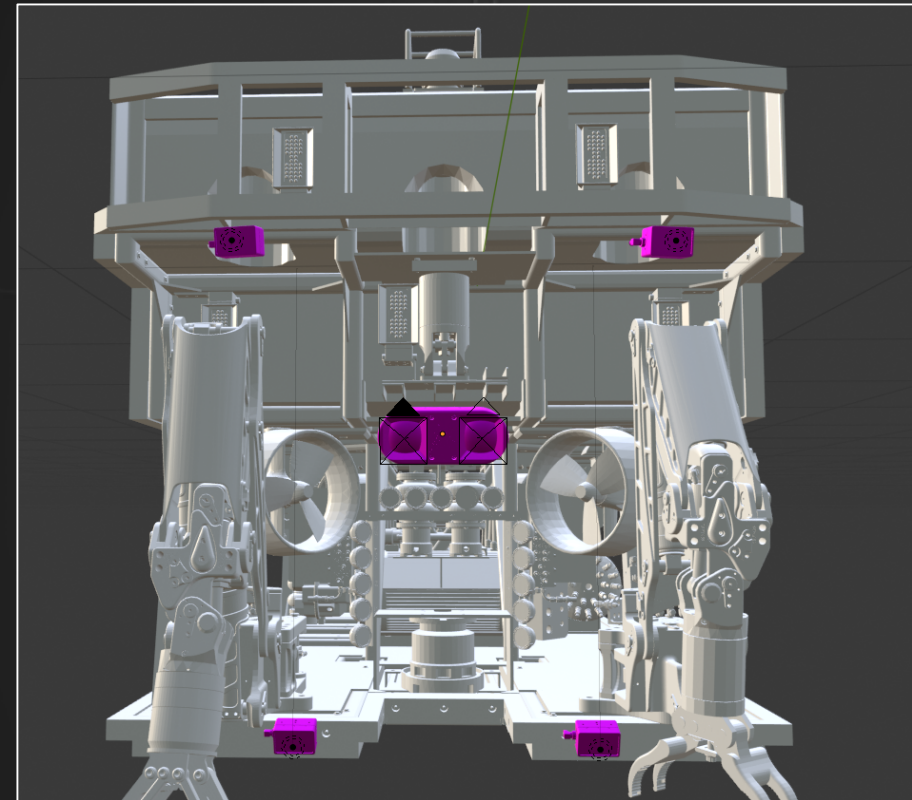
Leverage Oceaneering experience in survey and inspection.

Advanced Subsea Visual Metrology (ASVM)

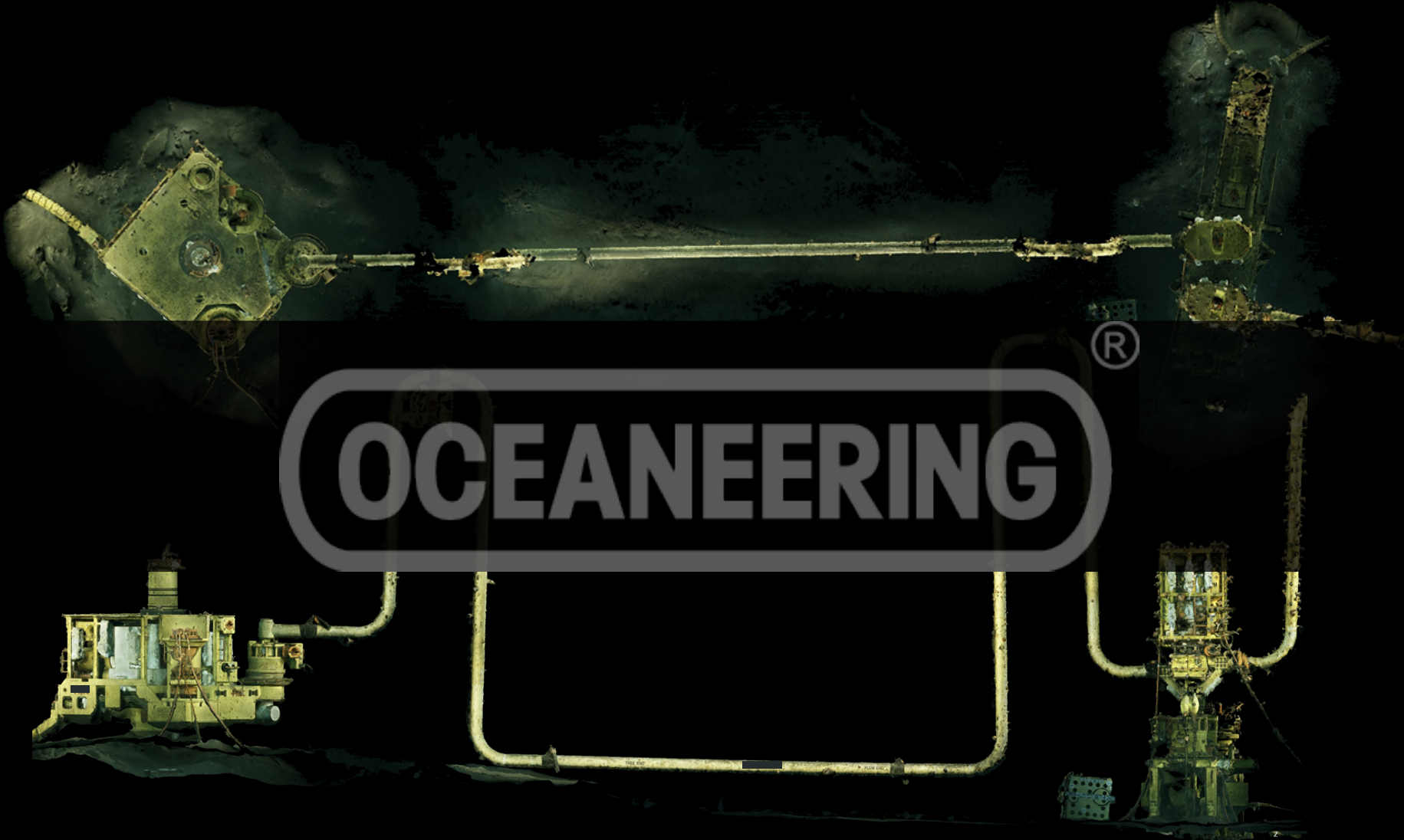


- 4K low latency video stream
- Optically engineered domed viewports
- Realtime onboard image enhancement
- Survey sensor synchronization
- High power LED strobe lighting
- Calibration Chart

for optimal image resolution.
for distortion reduction.
for true image color & distortion correction
for simultaneous data acquisition.
to reduce effects of turbidity and motion blur.
for validation of parameters subsea



Overview Profiles



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Detailed Inspections



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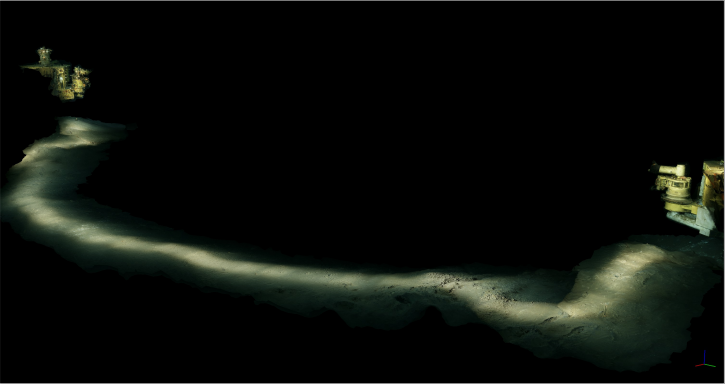
CVI Visual & 3D Data Results



Seabed Metrology








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Summary



-  **Reduce** specialist equipment spread required for operations
-  **Improve** operational efficiency & leverage remote capability
-  **Reduce** carbon footprint of operations in line with clients requirements
-  **Improve** data delivery to clients utilising Oceaneering data management solutions
-  **Leverage** existing Oceaneering experience in survey and inspection.

Use Cases

- Structural inspection
- Chain & mooring inspection
- UWILD Hull inspection
- Spool piece & Jumper metrologies
- Free-span measurement
- UXO identification



Connecting What's Needed with What's Next™