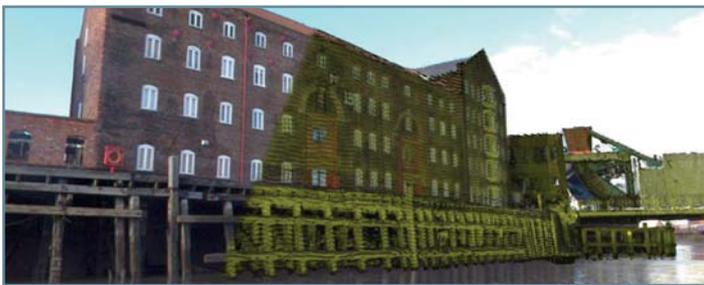


# Marine Mobile Mapping

Drawing on years of experience in the mobile mapping market, LandScope Engineering has established the capability to vessel mount the mobile mapping system for marine and river based applications.

Utilising the Topcon IP-S3 HDI Mobile Mapping System, LandScope are able to offer high resolution panoramic photography and high density LiDAR point clouds - geo-referenced and controlled to the highest accuracy. The resultant data may be readily integrated with traditional hydrographic datasets - such as multi-beam - ensuring the waterside infrastructure can be modelled and visualised quickly and accurately.



Given the portable and pre-calibrated nature of the IP-S3, the system may be rapidly deployed to either a vessel of opportunity or one of LandScope's dedicated survey boats. This minimises mobilisation time and allows for more time to acquire data when the conditions suit.

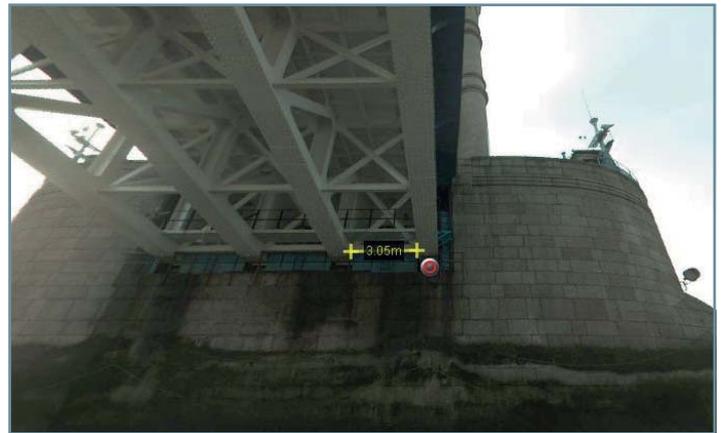


## Asset Inspection

The high resolution photographic output from the system facilitates asset inspection. This is particularly valuable in hard to access areas such as bridge soffits, dock walls and jetties.



The data can be delivered in a variety of formats including simple viewing platforms to full GIS and asset extraction tools. The 360° 'Street View' style photography allows for intuitive viewing with the accurate point cloud embedded within.

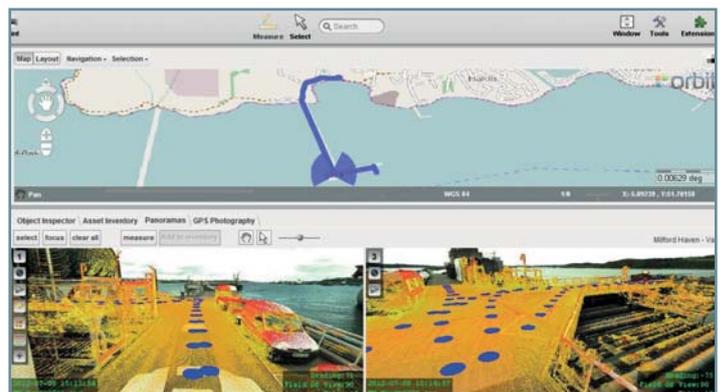


## Asset Management

With the rapid and simultaneous collection of high accuracy point cloud data and high resolution panoramic 360° imagery, the marine mobile mapping service provides for the creation of a rich and unlimited asset inventory source.

The point cloud data may be viewed in a variety of standard software packages and when combined with the photography, using an asset extraction tool such as *Orbit GIS*, real value can be realised and asset information may be extracted quickly and accurately.

Orbit software optimises the use of mobile mapping data to enhance the user experience from a basic viewing, content overlay and measurement environment through to a complete end to end 3D solution. The user has access to feature and extraction capabilities, point cloud visualisation tools and data sharing potential to obtain maximum value from the mobile mapping data.



## Topographical Mapping

Given the high quality positioning capability of the mobile mapping system the LiDAR output may be used to map topographical features.

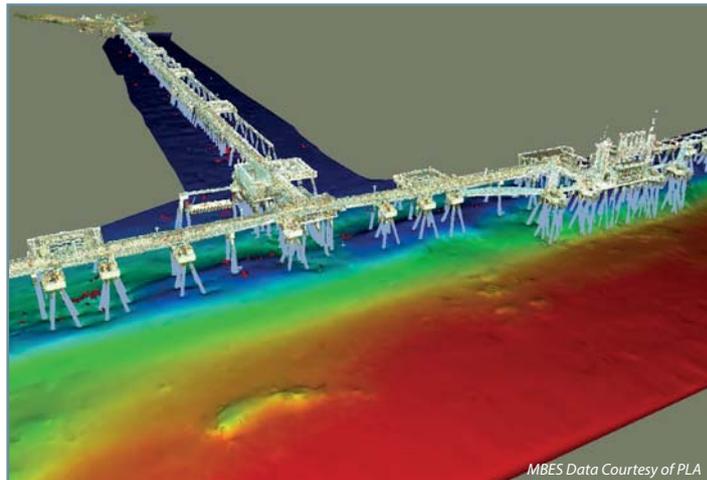
By utilising industry standard software such as AutoCAD, it is possible to extract features associated with the foreshore and adjacent structures to augment traditional survey and supply data that would previously be difficult and costly to obtain.



## Data Augmentation

The augmentation of multi-beam echo-sounder bathymetry with high resolution, coloured LiDAR can create added value to many survey projects.

In combining the LiDAR with multi-beam sonar data it is possible to realise a high resolution and accurate 3D dataset both above and below the waterline.



## Structural Modelling

Bespoke visualisations can be realised by utilising the point cloud to create accurate 3D models in a wide variety of formats. By including geometric information obtained from below the waterline a new dimension can be added to ensure a comprehensive model.

Whether the purpose is for planning, visualisation or to be integrated into BIM - real value can be added to your project.



The resultant deliverable is significantly more impressive, adding context and enabling efficiencies to be realised throughout the project life-cycle.

The process of augmenting datasets is centred around LandScope's core principle - to offer a fully integrated survey service. It is with the benefit of diverse hydrographic survey experience that LandScope is able to offer a bespoke solution to meet the requirements of our customers.

### Applications Include:

- River Bank Survey for Channel Modelling
- Asset Inspection via 360° Photography
- Asset Infrastructure Mapping
- Topographic Survey - Foreshore and Structures
- Pre-Construction Record
- Augmentation of Bathymetric Datasets
- Visualisation of Rivers, Docks, Ports and Harbours
- Vegetation Analysis
- 3D Modelling of Marine Infrastructure
- Bank and Cliff Erosion Survey

Related Inserts Available



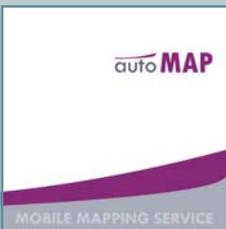
Hydrographic Survey



Bridge Survey and Inspection



3D Scanning and Modelling



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