BUOYANCY CONSULTANTS
MAKING YOUR PROJECT FLOAT!

3D LASER SCANNING

360-degree data capture using high-speed Laser Scanners

Areas of Application:

- As Built Documentation
- Retrofit/ Conversion
- Ship repair
- BWTS- Retrofit
- Historical Monument
- BIM Modelling

Certified
ISO 9001:2015
ISO 27001:2013

3D LASER SCANNING

How it works?

3D Laser Scanning is an advanced surveying /as-built data capturing technique that employs reflected laser beams to generate high-resolution 3D point cloud databases and enables the creation of dimensionally accurate as-built 3D digital (CAD) models of scanned objects or structures. BUOYANCY CONSULTANTS Is equipped with X130m Laser Scanner and can have the data capture accurately with a tolerance of ± 2mm.

They allow for a diverse usage in numerous application areas, such as:

- Ship & Industrial design engineering
- Development of 2D documentation from an 3D inventory of the architectural - Digital Heritage & Preservation
- Quality control including the preparation of technical reports
- Intelligent 3D modeling based on point cloud data
- Visualization and animation of 3D models
- Reverse engineering

SOFTWARE EXPERTISE

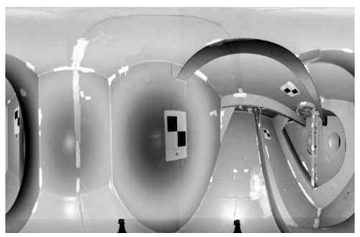
- LFM Modelling Suite
- Cadmatic
- Solidworks
- AutoCAD
- Revit
- Microstation
- PDS
- SP3D
- AVEVA PDMS (E3D)

TECHNOLOGY

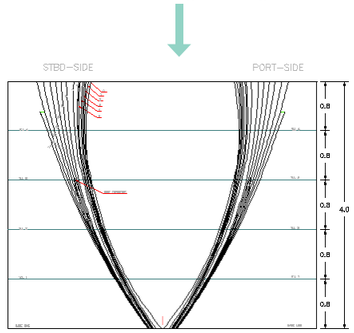
- 360 degree data capture using high-speed laser scanners
- High accuracy localized surveys (+/- 2mm)
- Scanning diameter up to 260m
- Rapid data capture minimizes time on site
- Cost efficient
- Remote access to hazardous areas

SERVICES

- Refurbishment & Extensions
- Scan to BIM
- Oil & Gas Revamping projects
- Intelligent Modelling
- 2D drawing creation, validation & extraction
- Clash Checking
- As-built Verification & Drawings
- P & ID, Isometric Drawings
- Tank Volume Calculations
- Actual construction progress tracking
- Architectural 3D Scanning
- Site Survey using Drone

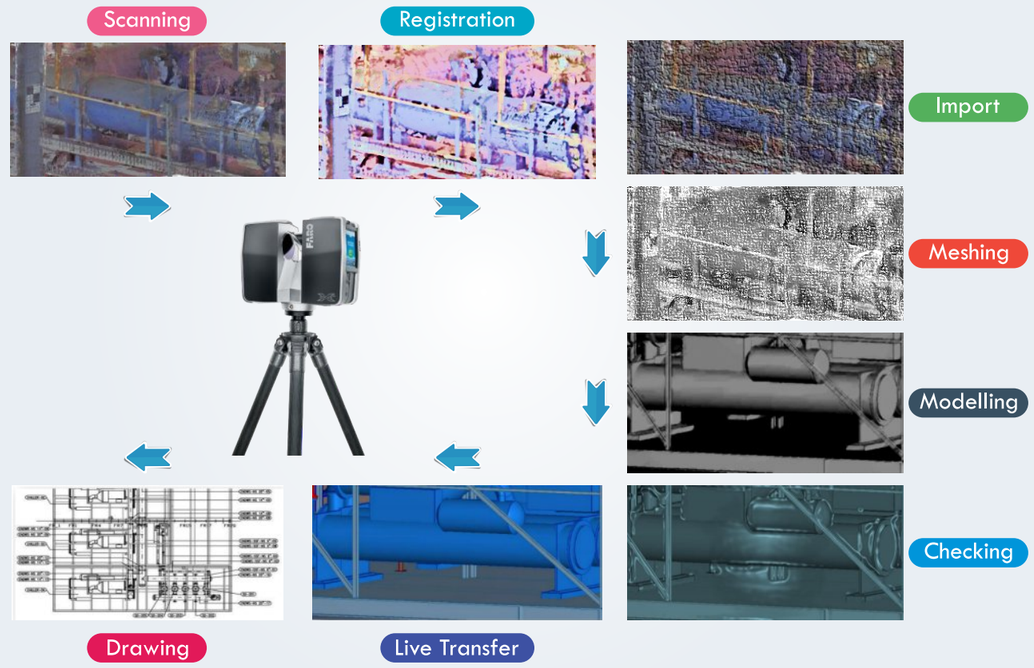


Reverse engineering



1. Owners Requirement
2. Onsite Survey
3. Project Planning
4. Capture Data (Laser Scan/Images)
5. Data Processing (Registration & QA/QC) Create Point Clouds Data
6. Create Deliverables 3D Data Extraction CAD & 3D Models Export to (CAD/Design)

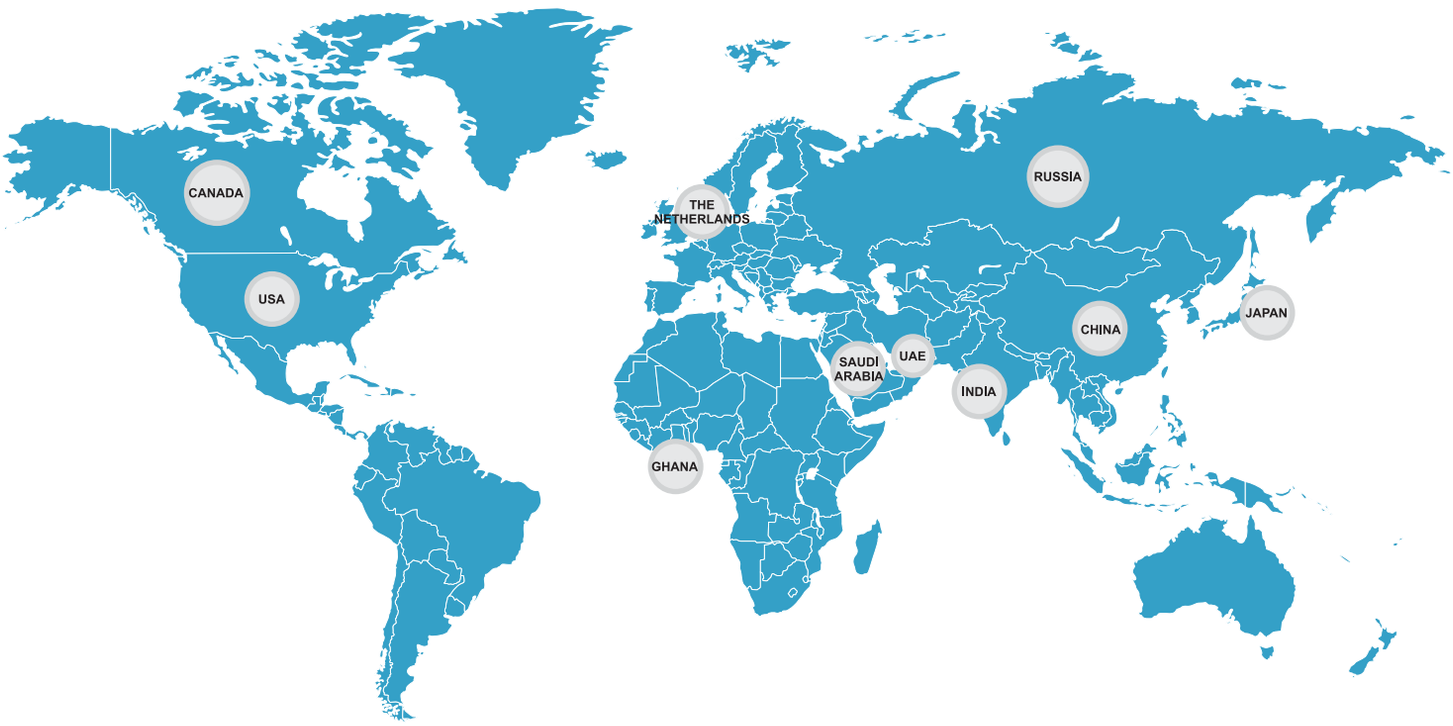
WORKFLOW



BENEFITS

- A fast and reliable technology to capture complex as-built status in any type of entity or surface
- Detailed 3D information of the actual conditions
- Risk minimization in projects where access is difficult and schedules are tight
- Greater automation and fast visualization increase collaboration anywhere in the world
- 3D laser scanning is quicker and more accurate than traditional manual measurements. Time can be shortened from days to a few hours
- Measurements can be made while at any point of location.

PROJECTS FLOATED



OUR CLIENTS

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