International Partner Büro

OIL & GAS
ONSHORE & OFFSHORE
UPSTREAM/MIDSTREAM/DOWNSTREAM
3D LASER SCANNING

Building Successful

Number **1** in **3D Laser Scanning** services

Businesses Since 2007

Making an **Impact** Across the **Globe**

International Partner Büro

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International Partner Büro

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International Partner Büro

Building Successful Business Since 2007

COMPANY OVERVIEW

Number **1** in **3D Laser Scanning** services

International Partner Buro S.R.L. (IPB) has over 12 years experience in the digitization and surveying of complex process plants and factories, providing the latest 3D laser scanning services to the European and blue chip clients world wide.

International Partner Buro is one of the major European companies that is able to provide 3D laser scanning and dimensional control to the world-wide oil & gas industry. Our team of specialists is able to deliver 3D laser scanning in challenging environments, creating the most effective and efficient solutions for our clients.

International Partner Buro offers excellent quality 3D laser scanning both onshore and offshore and has developed a high level of expertise in using the 3D laser scanning technology.

The oil and gas industry requires the highest level of process execution and safety from its service suppliers. International Partner Buro guarantees quality, flexibility and high reliability by virtue of its technical know-how, and can thus fully respond to the requirements of our clients in the oil & gas industry.

Our company has gradually refined its competencies and vast experience in the field, to be able to work for oil & gas companies with small and large platforms, vessels and refineries requiring services such as: 3D laser scanning, clash detection and reporting, dimension control, 3D modeling for maintenance and modification projects. Over the years, our company has built a strong reputation for thoroughness, innovation and high quality services.

Our company's main goal is the satisfaction of our customers and their requirements in every project that we engage. We are proud to have such a high standard of service, characterized by flexibility and efficiency, motivated and professional team at International Partner Buro.

Making an Impact Across the Globe

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AREAS OF EXPERTISE

The 3D laser scanning technology has groundbreaking characteristics that allow it to be used successfully in highly difficult projects for various fields and industries.

The energy, oil and gas sectors were the first to adopt 3D laser scanning solutions, due to the complexity of the industrial plants and installations and the need for reliable, high quality data.

The 3D laser scanning survey services provided by International Partner Buro gather a large amount of field information, based on which engineers can make decisions regarding the positioning, equipment customization and valuable data for process design, execution and maintenance streamline.

Our high accuracy measurements taken using the 3D color laser scanners can significantly improve the operation of shipyards and vessels, by facilitating the maintenance process and reducing the duration of the required inspections.

3D Laser Scanning is the ideal tool for locations such as:

- Offshore platforms
- FPSO vessels
- Oil & Gas tankers
- Refineries
- Chemical plants
- Electric plants
- Nuclear plants

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PROVIDED SERVICES & DELIVERED PRODUCTS

FULL PROJECT MANAGEMENT AND CONSULTANCY

- Single-point responsability;
- Improved schedule and performance;
- Cost control and value engineering;
- Enhanced client risk management;
- Coordination of global participation.

3D LASER SCANNING

- As-built documentation for CAD specifications of the plant layout;
- Monitoring installation behavior over time;
- Prefabrication purposes;
- Deformation analysis and tridimensional positioning.

RAPID PLANT AND FACILITY DIGITIZATION SERVICES FOR INDUSTRY 4.0

- 3D As Built Surveys for the Oil and Gas Sector
- 3D Imaging & Plant Digitization

VIRTUAL & AUGMENTED REALITY - CONTENT & TRAINING

- The technical staff working in the oil industry needs regular professional training;
- In this situation, VR technology can help;
- From health and safety to technical or corporate training, the virtual reality space offers cost-effective training as well as higher quality than traditional methods.

TANK STORAGE ANALYSIS, INSPECTIONS & CALIBRATION

- Tank Storage facilities and terminals require accurate tank data as a vital part of assurance, integrity & maintenance programmes.
- Anallysis of this information and sharing it across production, operations and engineering departments in a visual format is an integral part of the service IPB provid

INTELLIGENT 3D MODELING

- Complete intelligent 3D CAD models based on 3D point clouds.

CLASH DETECTION AND REPORTING

- Clash / Interference check between existing and new designed elements.

DIMENSION CONTROL

- Dimensional assessments for installations, equipments and structures;
- Correspondence check between CAD project and point clouds;
- Tank / vessel volumetric information;

P&IDs AND 2D DRAWINGS

- P&IDs, isometrics, sections, elevations, plans.

DATA CONVERSION

- Point clouds conversion to various data formats to meet clients' requirements.

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3D LASER SCANNING

3D laser scanning is the newest technology used in the field of land survey. Basically, a large amount of spatial data is quickly and accurately captured (X, Y, Z), using laser beam signals reflected by the objects or surfaces to be scanned.

International Partner Buro uses the latest laser scanner models which can measure millions of points in the tridimensional space. The result is the point cloud, an accurate 3D representation of objects, which can be delivered efficiently to the client.

International Partner Buro can deliver accurate measurements for a wide range of applications that require the advanced technology of 3D laser scanning combined with the ability to work in complex environments.

ADVANTAGES:

- **RAPIDITY:** the required time for data acquisition with the 3D laser scanner is very short, compared to any other measurement methods or technologies;
- **COST REDUCTION:** a large quantity of data can be acquired in a short period of time, by fewer staff members; there is no interference with other activities carried out in the area;
- **SAFETY:** very low risk of work accidents during the laser scanning; can be used in difficult environments, without affecting the integrity of objects and the safety of the operators;
- **ACCURACY:** the result is a complete and authentic 3D copy of the real-life objects, which cannot be obtained by any other measurement method;
- **EFFICIENCY:** allows a better use of resources and space; no need for additional visits on the site, in case any details have been left out.

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3D LASER SCANNING

Reverse-engineering and measurement of oil & gas tools in virtually every shape and size;

A fast, precise, reliable and cost-effective method for creating, updating and maintaining models, drawings and data;

Scan data can confirm whether replacement parts will fit existing equipment and also provide a clear documentation of tooling erosion to improve product design and reproduce tooling components.

BENEFITS:

- Generation of a PDMS/PDS model of the existing structure;
- Specialized team of surveyors;
- 3D or 2D data files, obtained by the same survey professionals;
- On-site operations throughout the world;
- Long-term experience in the oil & gas field;
- High precision scans;
- Results suitable for processing in all CAD softwares;
- Rapid results, often available for processing within days of on-site scanning;
- High speed of capture of on-site measurements;
- Non-contact scanning, with no interruption of production.

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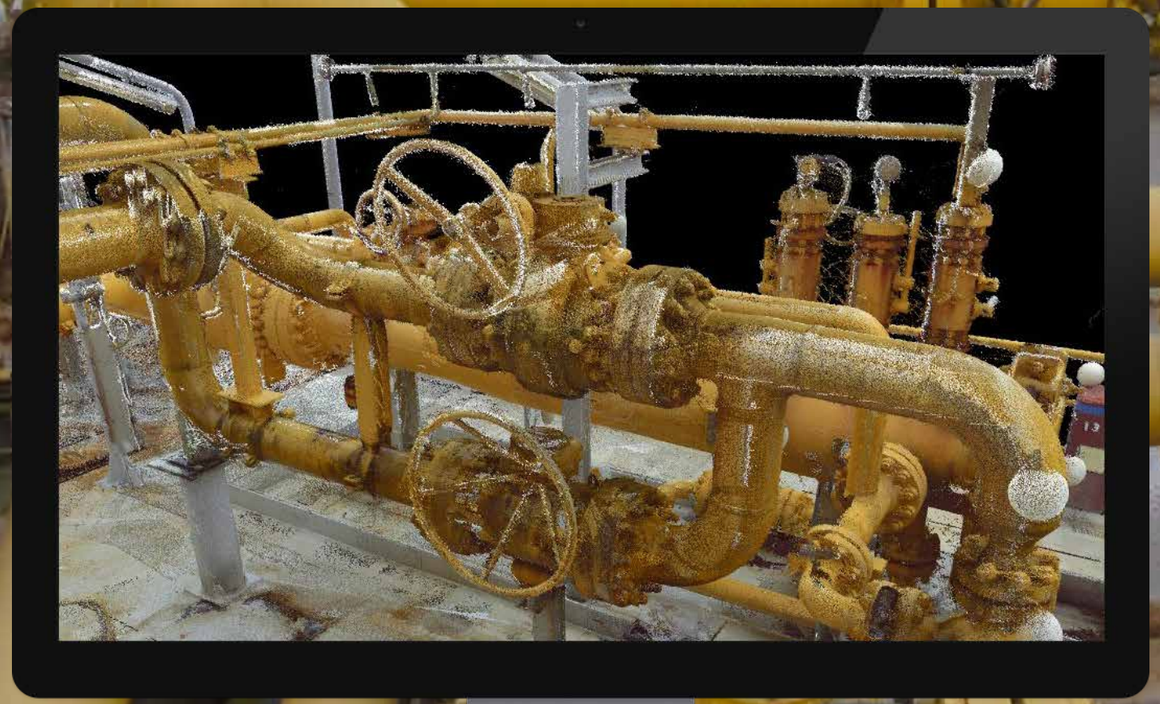
3D POINT CLOUD

The energy, oil and gas sectors were the first to adopt 3D laser scanning solutions, due to the complexity of the industrial plants and installations and the need for reliable, high quality data.

The 3D laser scanning result is represented by a data collection known as “point cloud”. The position of each point is defined in a 3D coordinate system via its X, Y, Z coordinates.

The point cloud represents an accurate 3D representation of objects, which can be delivered efficiently to the client.

AVEVA INTERGRAPH AUTODESK



3D POINT CLOUD ADVANTAGES:

- Authentic, complete and accurate copy of the reality, that can not be attained by another means or method of measurements;
- Based on the 3D point clouds, a detailed research of the installation’s/plant’s state can be performed by specialists;
- 3D point clouds allow measurement of distances and surfaces, representing the starting point for the intelligent 3D model;
- Clash detection / Interference check between existing conditions and new designed elements.

POINT CLOUD COMPATIBILITY

Since the amount of data obtained through the 3D laser scanning technology is huge, the range of products provided by International Partner Buro is very wide and they fully respond to the customized requests of our clients.

The delivered products are 100% compatible with all the software solutions available on the market (for exemple: Autodesk, Aveva, Bentley, Intergraph, VR Context etc.). International Partner Buro offers the possibility of delivering the data obtained from the 3D laser scanning in various formats, avoiding additional costs necessary for data processing and conversion.

AVEVA EVERYTHING3D · AUTODESK · Leica · kubit · FARO

AVEVA PDMS · Bentley · INTERGRAPH CADWorx SmartPlant 3D PDS · LFM · SCENE

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RAPID PLANT AND FACILITY DIGITIZATION SERVICES FOR INDUSTRY 4.0

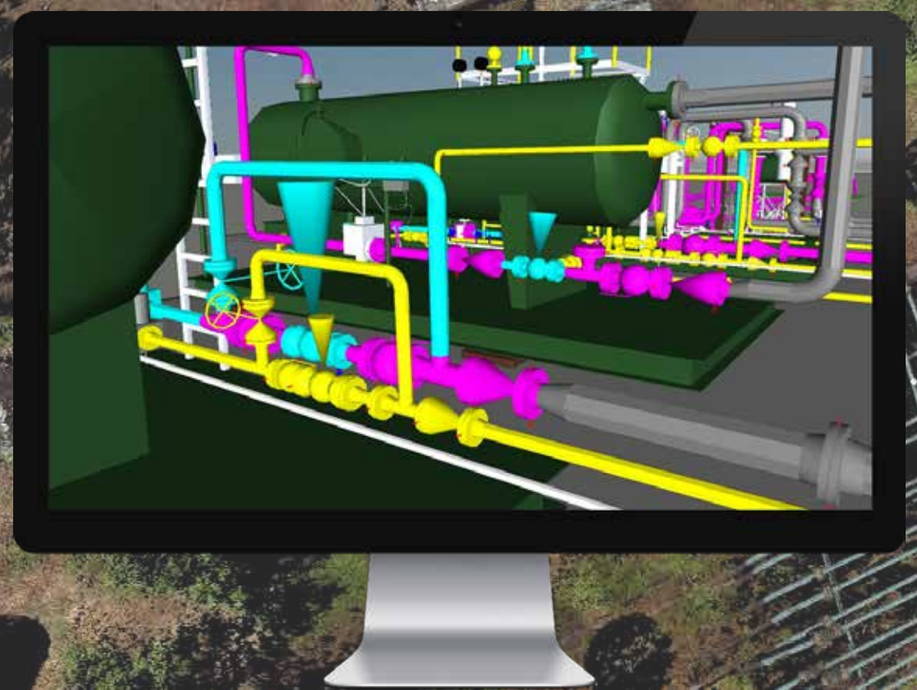
The ability to provide rapid accurate 3D documentation is essential when working in harsh environments where delays can have huge financial implications.

Additionally, 3D Scanning is essential when working towards a first time fit strategy.

Our team use the best-in-class laser scanners to provide mm accuracy.

Once a scan has been captured we can convert the data into an accurate as built model and verify if new fabricated parts will fit correctly.

Our team has scanned everything from full platforms, FPSO's or refinery's instalations.



Disciplines:

- Process and Instrumentation Diagram (P&ID);
- Catalogue driven 3D modelling;
- Pipe Isometrics (ISO Drawings);
- Structural design;
- Instrument Loop Diagrams;
- Electrical single lines, load schedules, and wiring schematics;
- Hazardous area (ATEX) drawings and cataloguing;
- Instrument and Equipment Datasheets.

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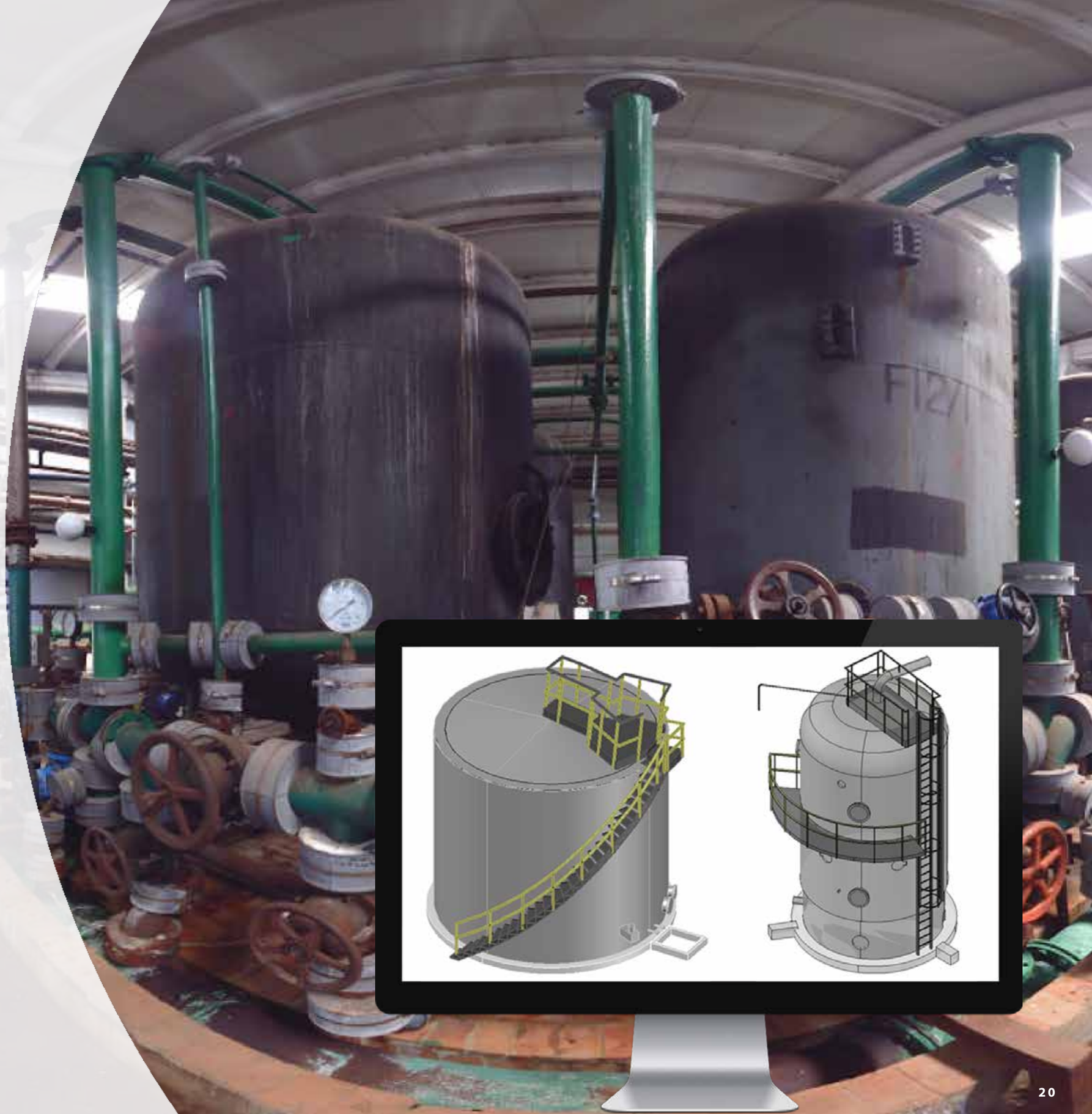
3D AS BUILT SURVEYS FOR THE OIL AND GAS SECTOR

- 3D Laser Scanning has been the preferred choice for offshore documentation for the last 10 years.
- The ability to provide rapid accurate 3D documentation is essential when working in harsh environments where delays can have huge financial implications.
- Additionally, 3D Scanning is essential when working towards a first time fit strategy.
- Our team use the best-in-class laser scanners to provide mm accuracy.
- Once a scan has been captured we can convert the data into an accurate as built model and verify if new fabricated parts will fit correctly.
- Our team has scanned everything from full platforms, FPSO's or refinery's instalations.



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VIRTUAL & AUGMENTED REALITY TRAINING

ADVANTAGES:

- SAFE, REALISTIC AND CONTROLLED ENVIRONMENT TO LEARN;
- PERFORM TRAINING REMOTELY: SAVE TIME, MONAY AND THE ENVIRONMENT;
- IMPROIVES RETENTION AND RECALL;
- REPEATABLE AND CONTROLLED EXPOSURE TO STRESSFUL SITUATIONS;
- HIGHLY ENGAGING TRAINING AT SCALE;
- ISOLATION FROM DISTRACTIONS;
- IMPROVE SKILLS FASTER THROUGH EXPERIMENTIAL LEARNING;
- SKILLS ASSESSMENT AND DATA-DRIVEN INSIGHTS.

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VIRTUAL AND AUGMENTED TRAINING FOR THE OIL AND GAS SECTOR

- Training in the virtual reality space can accelerate the learning speed by 15%.
- Training in the virtual reality space reduces by 20% the reaction time in situations when faced with a quick decision.
- VR can be used to put training participants through situations that simply wouldn't be feasible due to safety or inherent cost in the real world.
- The game engine features realistic physics. This allows the possibility to practice real-life skills and to experiment the consequences of different actions.
- From health and safety to technical or corporate training, the virtual reality space offers cost-effective training as well as higher quality than traditional methods.

TANK STORAGE INSPECTION & CALIBRATION

SERVICES:

- RADIAL DEFLECTION;
- SHELL VERTICALITY;
- ROLL OUT GRADIENT MAP;
- TANK SETTLEMENT;
- BUND VOLUME ANALYSIS;
- TANK DEFORMATION SURVEY;
- TANK FLOOR LEVEL ANALYSIS;
- RIM SEAL INSPECTION SURVEY;
- TANK CALIBRATION.

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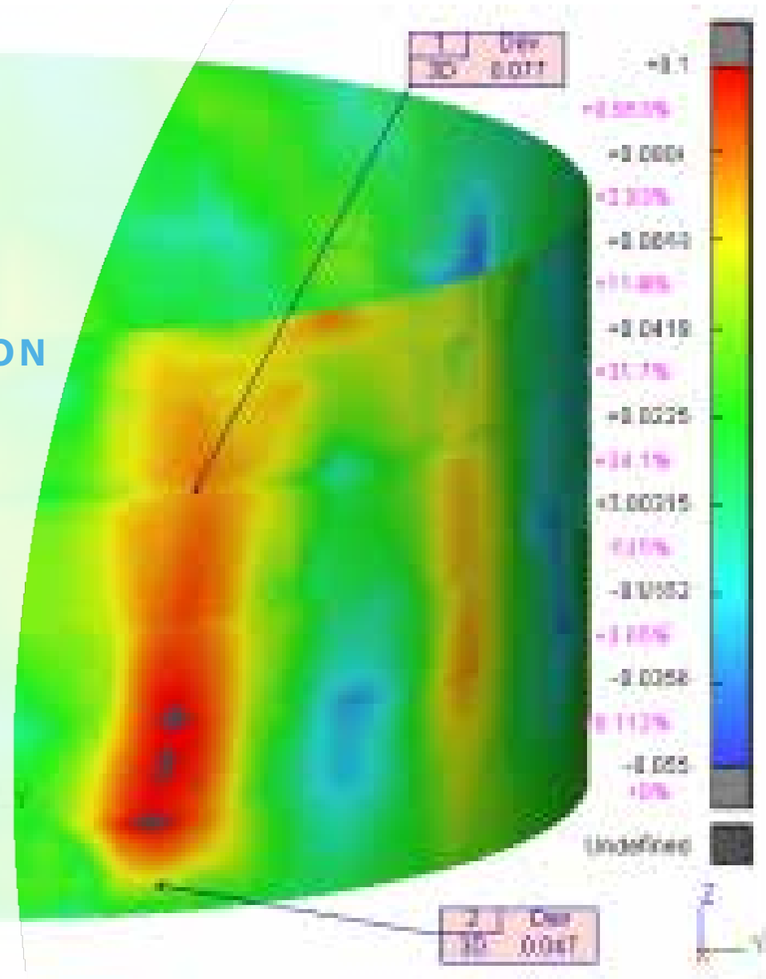
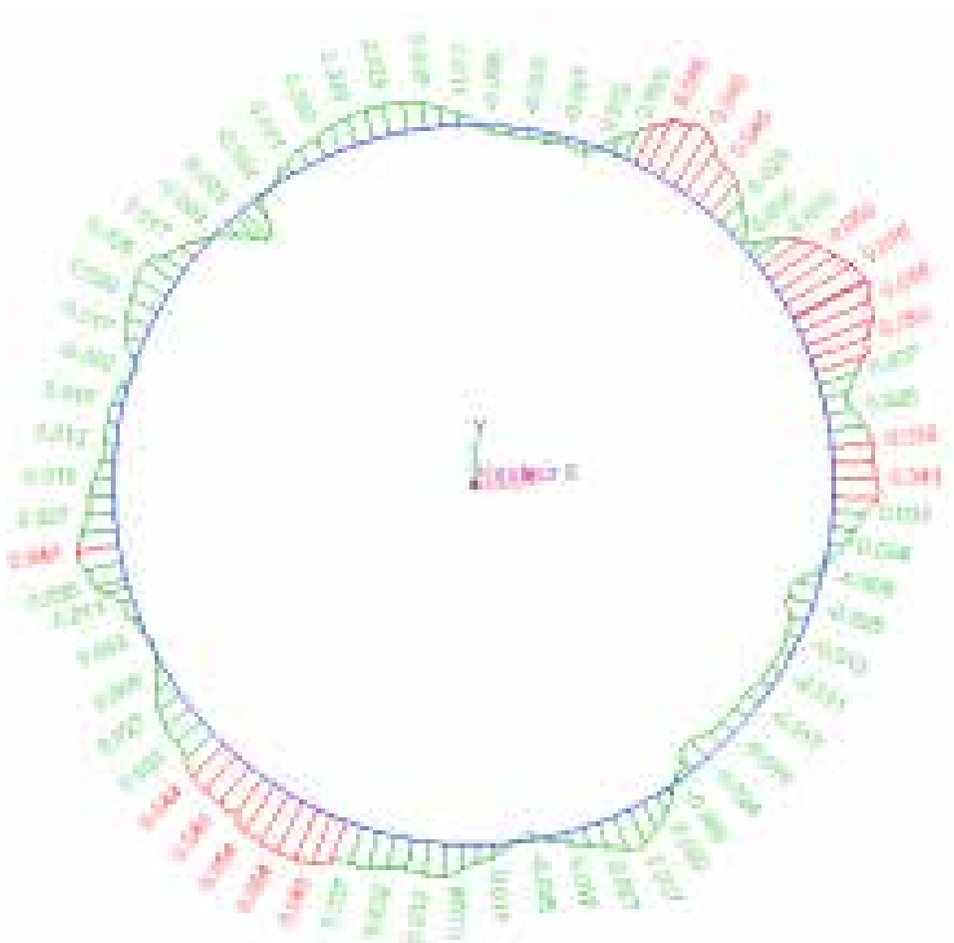
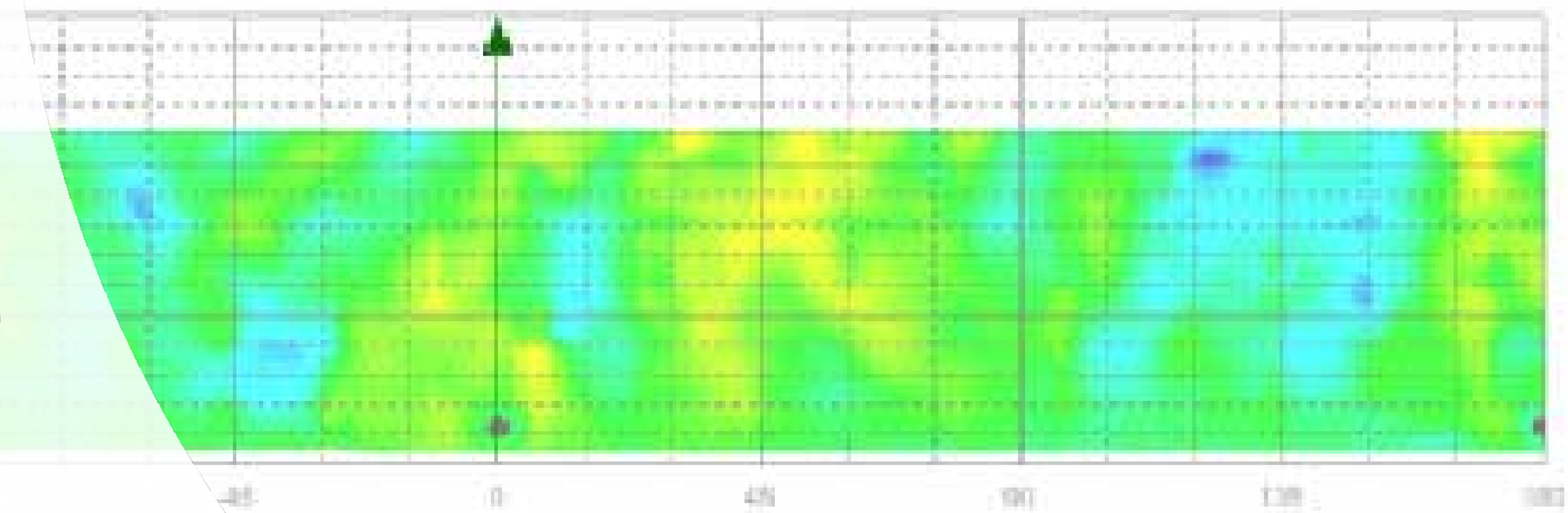
TANK STORAGE ANALYSIS, INSPECTIONS AND CALIBRATION USING 3D LASER SCANNING







BENEFITS:

- **ACCURACY** - Digital measurements can be captured to within 2 mm.
- **SAFETY** - There is limited requirement for surveyors to remain within confined spaces or for them to touch or have con tact with surveyed environments.
- **EFFICIENCY** - Large amounts of data can be captured with 3D laser scanning techniques.
- **HIGH HAZARDS** - Our 3D laser scan ning teams are trained to operate in high hazard industries. Risk assessed method statements (RAMS) are used for Oil & Gas, Petrochemicals, Nuclear and Tank Storage facilities.
- **SPEED** - 3D laser scanning captures data much quicker than traditional surveying methods.
- **VISUAL INTERROGATION** - We can deliver your data in multiple formats – be in 2D or 3D drawings, or an animated fly through.

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INTELLIGENT 3D MODEL

The 3D CAD model is an accurate reproduction of a real object in a 3D virtual space and is generated in CAD software, based on the point clouds obtained from the laser scanning.

We work with the latest AVEVA software E3D, which is fully compatible with standard format PDMS v.12.1 sp5. AVEVA is dedicated to a range of industrial installations.

We can also provide models in Cadworx Plant Professional (Intergraph) and Open Plant (Bentley Systems). Our PDMS design services include creating intelligent models and databases intended for industry, offshore and related.

AVEVA PDMS · AVEVA EVERYTHING3D · Bentley · AUTOCAD PLANT 3D · CadWorx

INTELLIGENT 3D MODEL ADVANTAGES:

- Being based on the 3D point clouds, the 3D models are highly accurate, detailed and complete copies of the real objects;
- The 3D model allows measuring and viewing all the elements of an installation, even if they may not be included in the 2D survey;
- The 3D models can be used for measuring distances and calculating areas and volumes.
- Using a 3D software, each component of a structure can be checked, tested, analysed, and changed;

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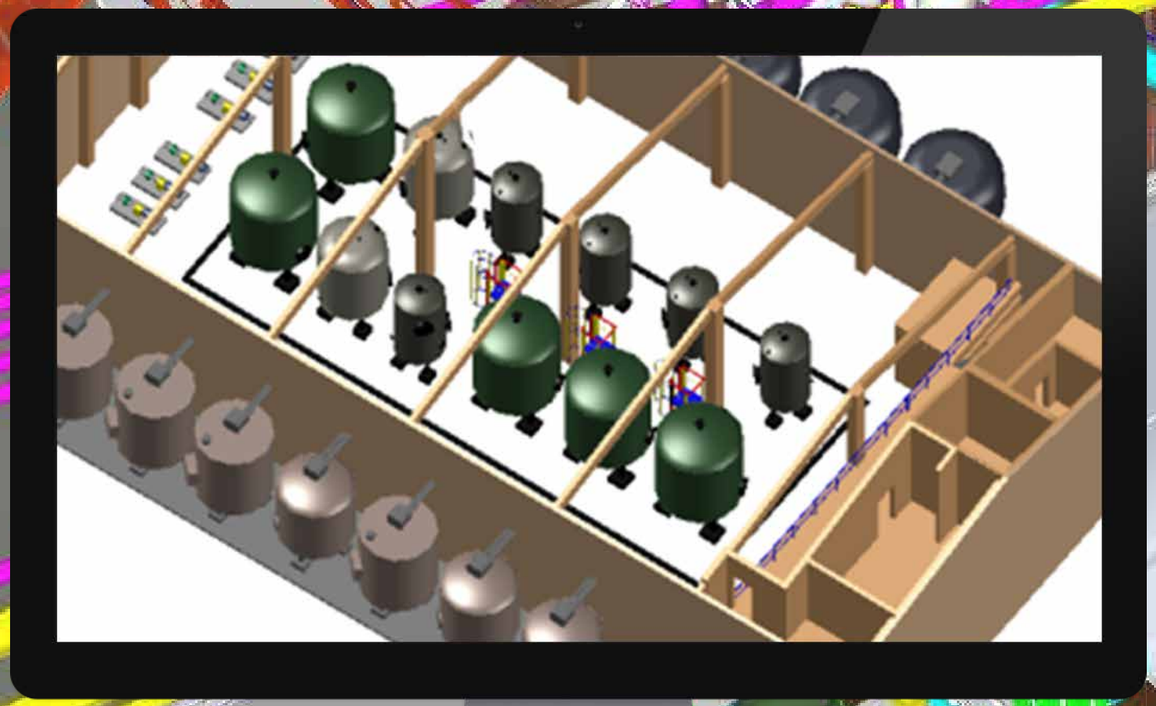

AVEVA E3D

For many, PDMS is simply another version of a 3D Model. In fact, it should be considered a database rather than just a spatial representation of objects.

PDMS was created specifically for the design of new oil&gas installations, from the early concept to the final detailed design. PDMS provides an opportunity to schedule components, for example, the number of bolts of a particular size to complete a construction.

When it comes to as-built documentation, a PDMS model is only as useful and valuable as the information contained within the database.

Consequently, the more detail collected, the greater the time and cost to produce the model. Creating an appropriate specification for the level of detail to be included is therefore critical. 3Deling will work with you to create a cost-effective solution tailored to the information you require.

AVEVA PDMS · AVEVA EVERYTHING3D · Bentley · AUTOCAD PLANT 3D

INTELLIGENT 3D MODEL ADVANTAGES:

- Enable comprehensive lifecycle information management;
- Open data models simplify data sharing and expedite projects because existing designs, models, and associated data and catalogs can be reused;
- Ultimately, the efficiencies established in a successful design process should result in intelligent digital engineering models that allow information to be preserved, augmented, and validated from preliminary design through successive lifecycle stages.

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Delivered product:

Point cloud

Delivered product:

Intelligent 3D Model

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CLASH DETECTION AND REPORTING

Clash detection is the process of looking for potential clashes (interferences, collisions) between components or objects prior to their installation or fabrication.

International Partner Buro (IPB) help detect these clashes before they happen.

AVEVA PDMS · AVEVA EVERYTHING3D · Bentley · AUTOCAD PLANT 3D · CloudWorx

CLASH DETECTION:

- Interferences and collisions between components or objects (such as piping) can cause project delays and increase costs.
- It is a process used in many different industries to ensure the smooth installation of components with minimal down time or re-work required for the parts to fit.
- Any identified clash can be eliminated cost-effectively at the design stage, in contrast to its discovery on site triggering costly time delays and material expenses.

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DIMENSION CONTROL

By having dimensional control insight into the construction processes and by having experience and understanding of installation procedures, dimensional control experts can inform the construction teams on how to make mid-course corrections and adjustments, so that the components will fit together from the first try.

This means they can avoid potential serious expensive problems from occurring before the critical stages.

AVEVA PDMS · AVEVA EVERYTHING3D · Bentley · AUTOCAD PLANT 3D

DIMENSION CONTROL ADVANTAGES:

- Reduced field survey time, design and shutdown times;
- Reduction of man-hours in potentially hazardous areas and activities;
- Guaranteed fit of pre-fabricated items
- Elimination of multi-handling of components;
- Availability of archived data;
- Elimination of re-design during installation;
- Minimize fit-up issues that result in schedule/ budget overruns.

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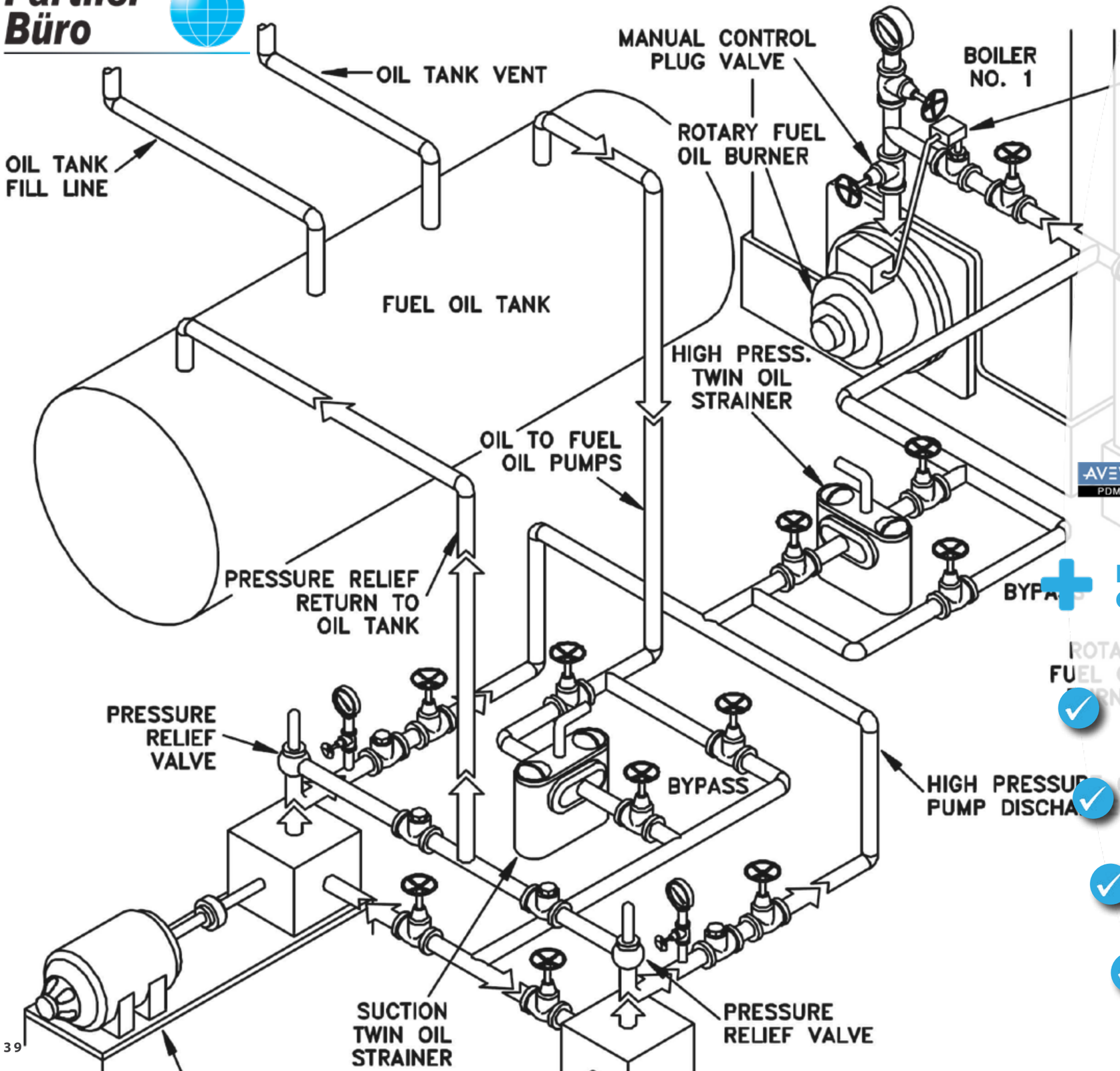

P&IDs AND 2D DRAWINGS

A piping and instrumentation diagram (P&ID) is a detailed diagram in the process industry which shows the piping and process equipment together with the instrumentation and control devices.

P&IDS are the foundation of the maintenance and modification process that it graphically represents. At the design stage, the diagram also provides the basis for the development of system control schemes

AVEVA PDMS · AVEVA EVERYTHING3D · Bentley · AUTOCAD PLANT 3D

FOR PROCESSING FACILITIES, IT'S A GRAPHIC REPRESENTATION OF:

- Key piping and instrument details;
- Control and shutdown schemes;
- Safety and regulatory requirements;
- Basic start up and operational information.

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DATA CONVERSION

Converting data into formats that help you understand, analyze, and present information is required in all fields of work, especially in the oil & gas industry.

Data conversion is widely used for reasons related to accessibility, because certain softwares only work with a limited range of file formats.

This is due to the innate structure of the file itself. While this was once a limitation, there are now many strategies for converting data which allows for greater flexibility.

With milions of points colected from 3D laser scans, it is inevitable that data conversion will be a task that you complete, no matter how simple or complex the conversion.

AVEVA INTERGRAPH AUTODESK

DATA CONVERSION ADVANTAGES:

- Improved Operational Efficiency - Faster data access and easier support ensure reduced business downtime, thereby improving operational efficiency of the business.
- Efficient utilization of Existing Data - complex information can be simplified into understandable data formats, facilitating intelligent use of the available data.
- Superior Presentation and Sharing of Information - Once data is converted into a structure, which can be easily incorporated into the web and various other applications, everybody to whom the information is intended to address can conveniently access it.
- Information at Your Finger Tips - Data can now be rearranged, converted, and stored for the purpose of easy searching, accessing, archiving, and sharing.

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SOLUTIONS FOR AVEVA USERS

3D laser scanning data

LFM™

LFM Server

LFM Gateway

LFM Generator

AVEVA

LFM Modeller

AVEVA PDMS

AVEVA Marine

AVEVA Everything3D

International Partner Büro

SOLUTIONS FOR INTERGRAPH USERS

3D laser scanning data

LFM

LFM Server

LFM Gateway

LFM Generator

LFM CADLinks

Cloudworx

INTERGRAPH

Intergraph PDS

Intergraph Smart3D

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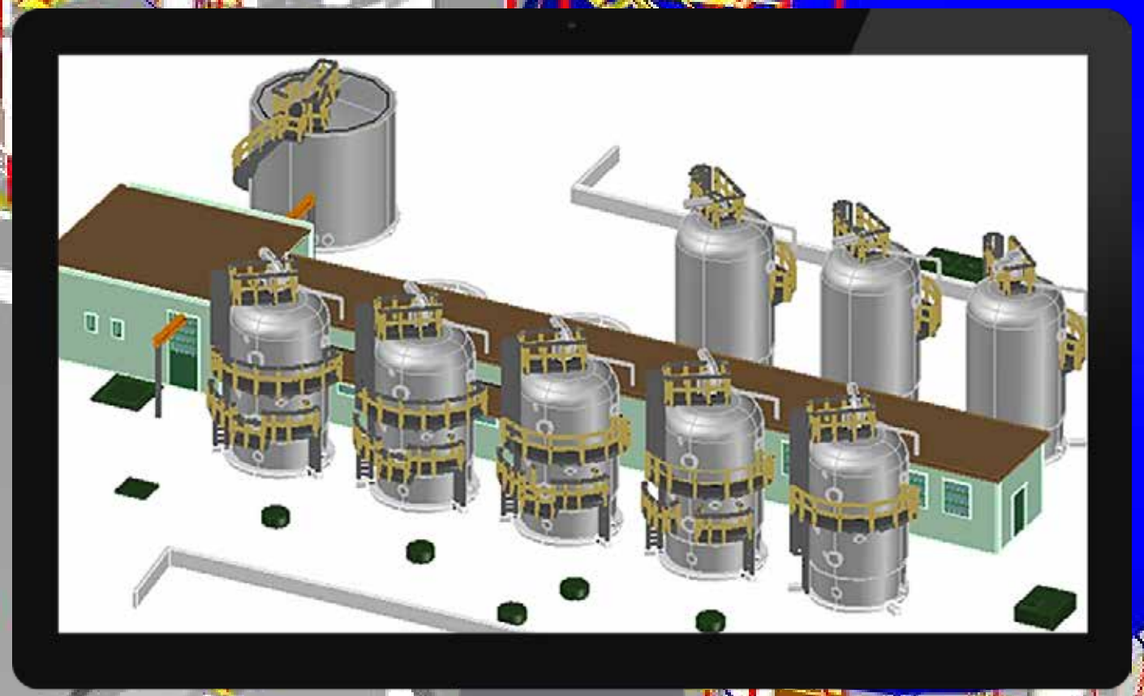
DELIVERED PRODUCTS

- 3D POINT CLOUDS
- VIRTUAL REALITY
- INTELLIGENT 3D MODEL
- SCENE 2GO (PORTABLE)
- HD PANORAMIC IMAGES
- SITE PLANS
- INTEGRATED GIS DATA

AVEVA EVERYTHING3D · Bentley · AUTOCAD PLANT 3D



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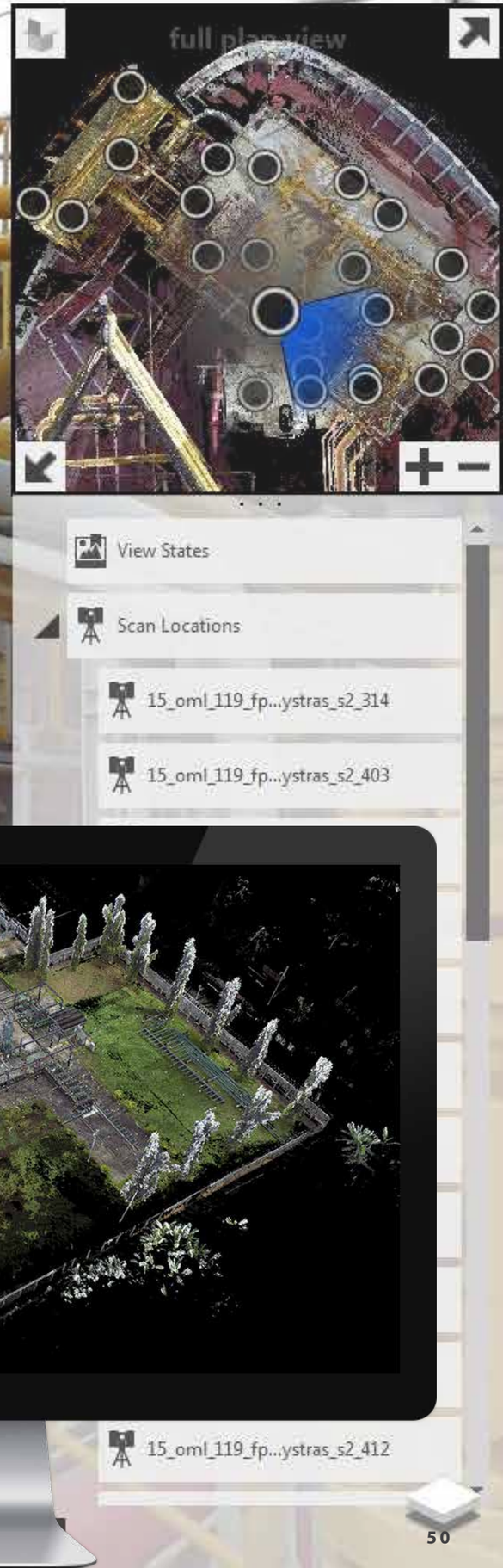
DELIVERED PRODUCT:
3D POINT CLOUDS
RECAP 360 FILES FORMAT

Autodesk Recap 360 is a reality capture and 3D scanning software. International Partner Buro can provide native ReCap files to its clients, thus helping them experience a virtual reality version of their project.

Users can not only view the 3D point cloud in Autodesk ReCap 360, but also all the panoramic HD photographs taken from every scan location in the project. A very useful feature of Autodesk Recap 360 software is the possibility to insert existing 3D models in the point cloud, which can allow users to view photorealistic simulations.

RECAP 360 ADVANTAGES:

- Users have the posibility of viewing real-world objects through the 3D option and through panoramic images of every scan location;
- In ReCap 360 files we can use advanced measurement tools, for faster, truer clearance checking;
- The software allows users to import 3D models in the point cloud files, thus creating realistic tridimensional simulations easier;
- ReCap 360 files allows users to take virtual tours through the scanned area and experience the on-the-ground version of the project.



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Delivered product:
Point cloud

Project:
OML 20 Egbema Main Nigeria

International Partner Büro

DELIVERED PRODUCT: **VIRTUAL REALITY**

PRODUCTS:

- VIRTUAL REALITY TOURS THROUGH POINT CLOUDS
- VIRTUAL REALITY TOURS THROUGH 3D MODELS
- VIRTUAL REALITY TOURS BASED ON SCENARIOS

WHY IS VR SO GOOD TRAINING?

- VR is an exceptionally good environment for learning for many reasons.
- First, the brain treats virtual reality space as if it were a real-life experience.
- When you wear a VR headset, your brain is tricked into believing that the environment created in virtual space is real.
- The VR environment can be extremely powerful in conveying different feelings, such as danger, urgency or fear.

Delivered product:
Virtual Reality

Project:
OML 20 Egbema West Nigeria

International Partner Büro

DELIVERED PRODUCT:
INTELIGENT 3D MODEL

The intelligent 3D CAD model is an accurate reproduction of a real object in a 3D virtual space and is generated in CAD software, based on the point clouds obtained from the laser scanning.

It includes piping, equipment, structural, civil/ foundation, electrical cable tray, HVAC ducting, and multi-disciplinary hangers and supports.

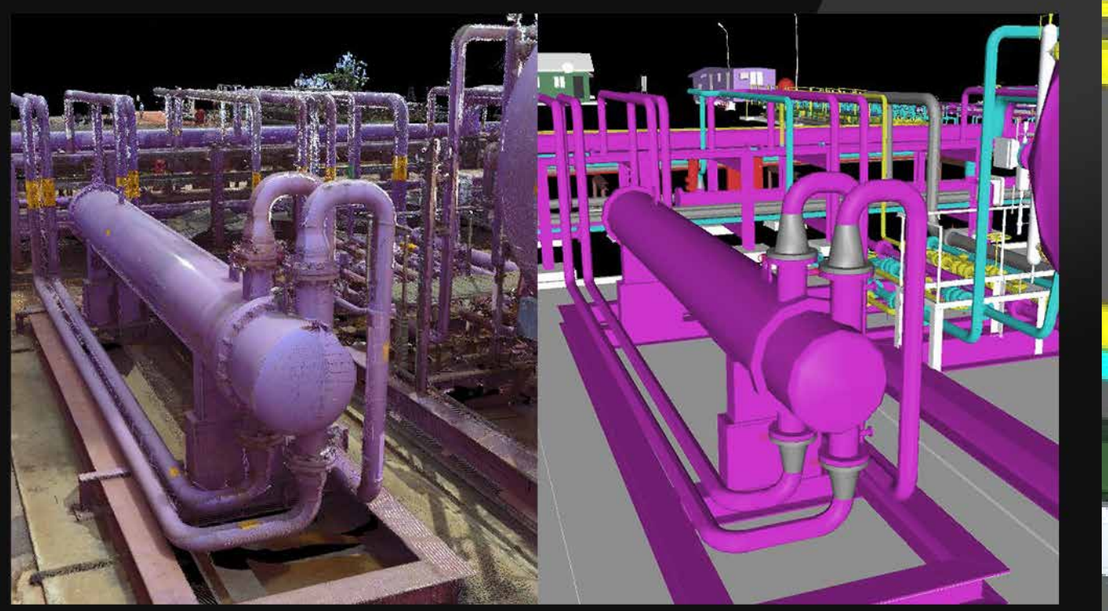
The experience of going through a 3D model is more compelling and satisfying to a prospect than viewing a 2D drawing.

Similarly the project approval rate in construction business is quicker when a 3D model is used.

AVEVA PDMS · AVEVA EVERYTHING3D · Bentley · AUTOCAD PLANT 3D · CloudWorx

INTELLIGENT 3D MODELS ADVANTAGES:

- Being based on the 3D point clouds, the 3D models are highly accurate, detailed and complete copies of the real objects;
- The 3D model allows measuring and viewing all the elements of an installation, even if they may not be included in the 2D survey;
- The 3D models can be used for measuring distances and calculating areas and volumes.
- Easy re-modeling and corrections - this would help in finalizing the design without much cost and post-construction cost-incurring changes or corrections.



International Partner Büro

Delivered product:
Intelligent 3D Model

Project:
OML 20 Egbema West Nigeria

International Partner Büro

DELIVERED PRODUCT: **SCENE 2 GO**

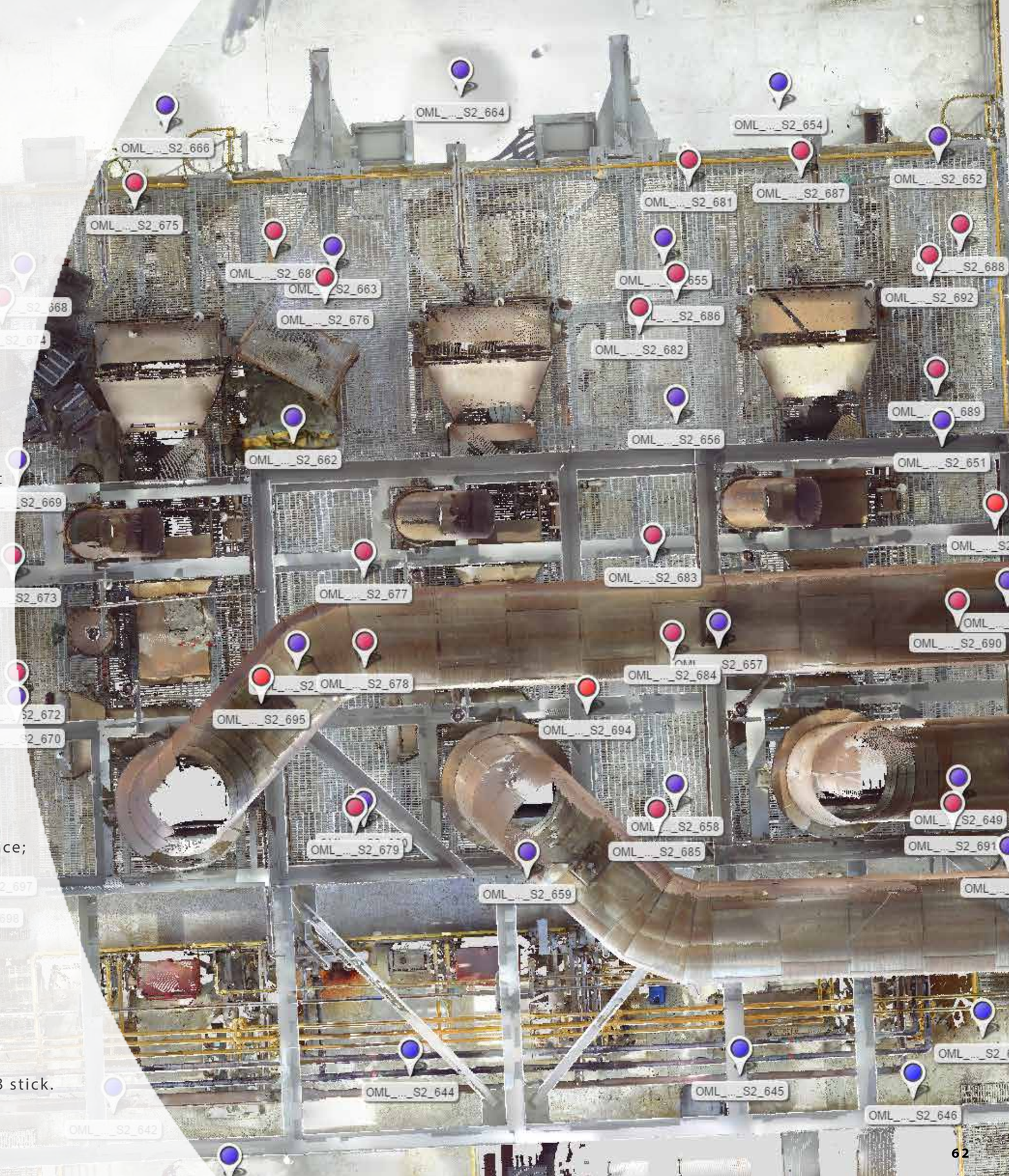
SCENE 2 GO allows users to view SCENE scan projects without owning the SCENE software. Users can view individual scans in a project and create measurements.

3D measurements
It allows the user to create measurements in the overhead map, panorama, and 3D views.

360° panoramic view:
Each panoramic position provides a 360° view, including all the details recorded during the laser scanning.

SCENE 2 GO ADVANTAGES:

- Easy to understand viewing of 3D laser scanning projects;
- Project Overview for all projects stored on the USB storage device;
- Intuitive Overview Map;
- Panoramic View for each scan for best clarity;
- 3D View for each scan for best understanding of spatial details;
- Measurements in Panoramic View and 3D View;
- No knowledge about 3D systems and laser scanning is required;
- No installation required. The Viewer starts directly from the USB stick.



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Delivered product:
SCENE 2 GO

Project:
OML119
FPSO - Mystras
Nigeria

International Partner Büro

DELIVERED PRODUCT:
HD PANORAMIC IMAGES

The 360-degree panoramas capture all directions and efficiently cover a full sphere around the capture point creating a large field of view, unlike the 2D capture which provides a still image at a given direction.

We can export the HD panoramic images from every 3D scan:

- **Colored**
- **Shades of grey**

HD PANORAMIC IMAGES ADVANTAGES:

- High quality images that offers all of the details recorded during the laser scanning process;
- Wide range capture of 360 ° view;
- The posibility to view the panoramic images in a free application like SCENE 2 GO Viewer;
- Measurements in Panoramic View.

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Delivered product:
HD Panoramic Images

Project:
Egbema Main Nigeria

International Partner Büro

DELIVERED PRODUCT: **SITE PLANS**

Our aim is to produce cost effective drawings of the highest level of accuracy and quality to meet the needs for your company.

We understand customers' technical requirements and create technical drawings that meet international quality standards and offer 2D CAD drafting services, including images, markups maps, blueprints, etc.

Our team is comprised of experienced engineers, CAD designers, and project management professionals who are proficient in managing specific 2D CAD design requirements.

Our 2D drafting services team helps render prompt, effort-free, reliable, and accurate designs to customers.

SITE PLANS ADVANTAGES:

- 2D Layout Drawings and Redline Mark-Ups;
- As Built Drawings;
- 3D Piping Layouts;
- P & ID and Schematic Drawings;
- 3D Fly Arounds and Walk Throughs;
- CAD System Setup.

International Partner Büro

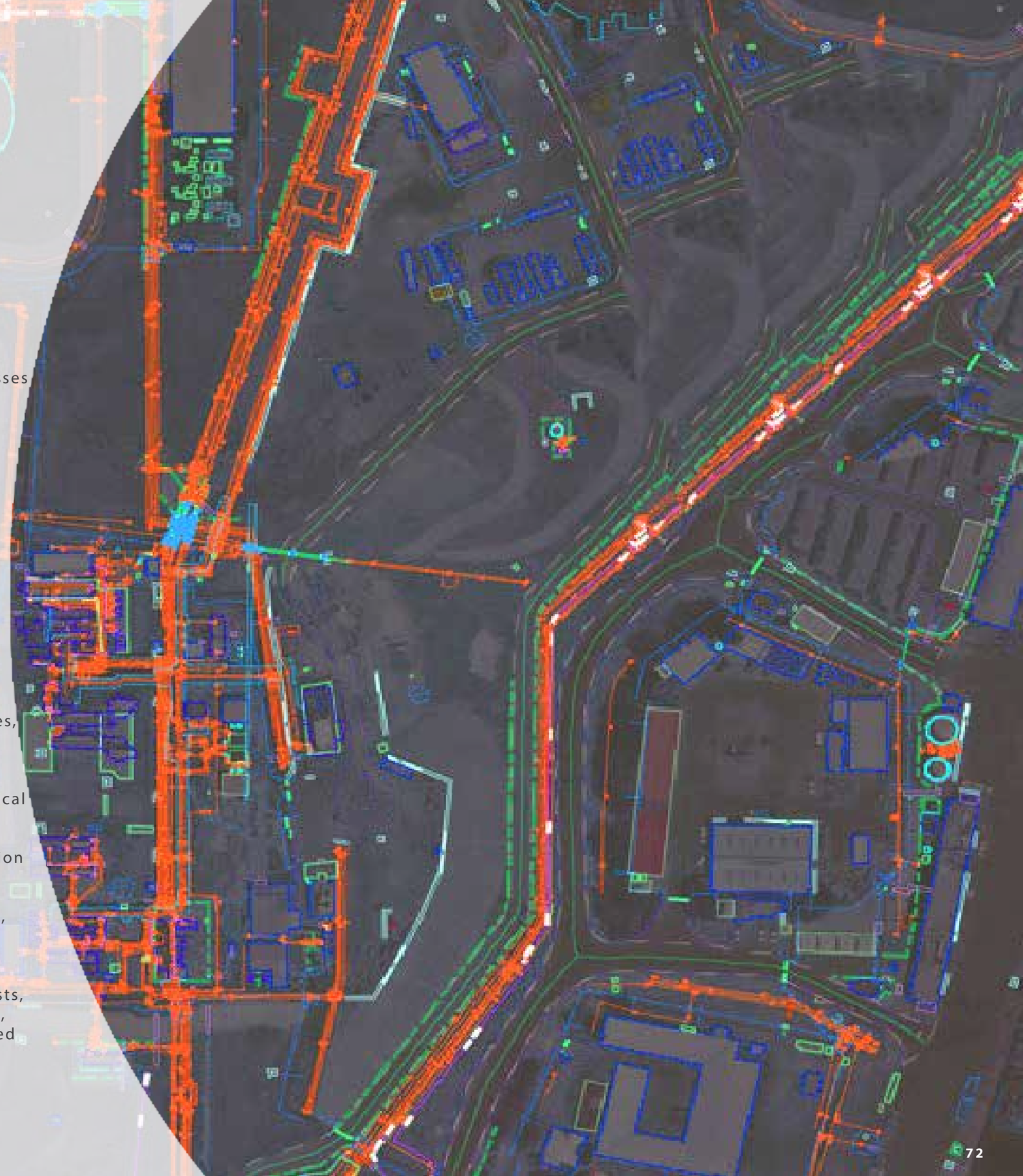
DELIVERED PRODUCT: **INTEGRATED GIS DATA**

The Oil and Gas industry is driven by an estimated 80% data that has a spatial component. This is the only industry that harnesses spatial information at every stage of the life-cycle, beginning with opportunity analysis and exploration, through appraisal and production, right up to the abandonment phase.

Assets, offices, sites, workers as well as operations are geographically dispersed. So large and complex data is utilized to explore and manage the spatially distributed assets and operations. Dedicated maps and models are proving to be the most effective way to visualize and communicate.

INTEGRADTED GIS DATA ADVANTAGES:

- **Empowers decision making** – which acreage or play to enter, how to shorten portfolio workflows, how to plan the optimal pipeline route, integrate results of seismic survey, planning emergency response, better management of facilities, manage pipeline outage and leaks, etc.
- **Supports future action and ongoing exploration activities** – By standardizing processes and reducing technical uncertainty, GIS improves exploration efficiency.
- **Increased efficiencies** – multi disciplinary data integration for risk assessment and uncertainty, better access for cutting wasteful downtime, optimized maintenance schedules; monitoring and analysis of daily fleet movements in real time, least cost path analysis for pipeline routing, standardized portfolio workflows, cutting down decision cycle times, etc.
- **Cost saving** – an estimate of 10-30% cut in operational costs, prevention and management of incidental or accidental costs, efficient pipeline and fleet management saves costs, optimized drilling and operation workflows enhances ROI, and so on.
- **Improved communication** - across spatially dispersed locations.



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CLIENTS & PROJECTS PORTFOLIO

Project Name	Client	Scope	Location
Digitization of Mystras FPSO in OML 119	Nigerian Petroleum Development Company Limited (NPDC)	- 3D laser scanning	Gulf of Guinea, Nigeria
OML 20: Egbema Main	Nigerian Petroleum Development Company Limited(NPDC)	- 3D laser scanning	Imo State, Nigeria
OML 20: Egbema West Flowstation	Nigerian Petroleum Development Company Limited(NPDC)	- 3D laser scanning	Imo State, Nigeria
OMV Petrom: Petrobrazi Refinery	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: North & south trestle	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Tank steaming ramp CF	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Crude oil unloading ramp SA 25	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: SCLPP ramp	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: LPG tank truck ramp	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Crude oil ramp	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: DRB flare	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Old flare refinery	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania

Project Name	Client	Scope	Location
Petrobrazi Refinery: Old flare refinery	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: DRB softening (DAPAC)	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Petrochemistry softening	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Gasoline unloading ramp	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Preheating crude oil RTC	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Truck check up ramp	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Liquid products automatic ramp	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Automatic ramp no. 216 C	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Tank trucks loading P1 ramp	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Refinery water filters	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: RCI recirculated water station	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Refinery chemical station	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Brazi colony thermical station	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: DRB thermical station	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Thermical station - zone 37	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Condensation water stations	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Hamon tower	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Compressor station	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Regulation station	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Methane gas distribution colony	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: Boosting station	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania
Petrobrazi Refinery: 31 areas	OMV Petrom S.A.	- 3D laser scanning - 3D modeling	Brazi, Prahova County, Romania

YOUR NUMBER **1** OPTION IN

3D LASER SCANNING SERVICES

International Partner Büro

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International Partner Buro provides 3D laser scanning services internationally.

Petrobrazi Refinery
Brazi, Romania
3D Laser Scanning performed by
International Partner Buro S.R.L. in 2013