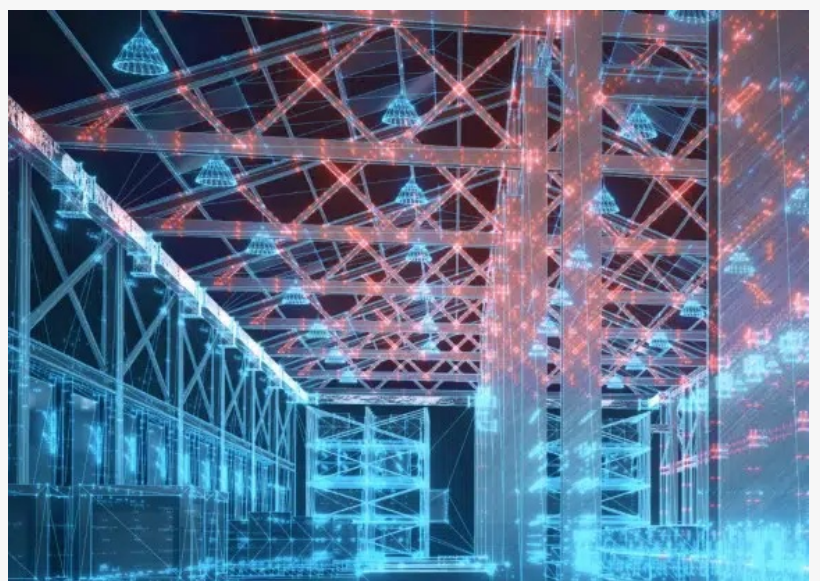


# 3D Laser Scanning Technology Ensuring Accurate & Rapid Scanning of Built Assets

*BIM laser scanning company in USA is developing quality assured futuristic design and digital models for new construction, renovation and facility management.*

WASHINGTON DC, DISTRICT OF COLUMBIA, USA, December 2, 2021 /EINPresswire.com/ -- Laser scanning in construction is an innovative technology helping the AEC professionals in saving significant costs and time. Adopting [3D laser scanning services](#), BIM engineers digitally capture the existing environment of the construction site.



3D Laser Scanning Technology Ensuring Accurate & Rapid Scanning of Built Assets

Tejy Inc. – a competent BIM laser scanning company in USA is developing quality assured futuristic design and digital models for new construction, renovation and facility management. Whether it's a residential building, commercial complex, parking garage or an industrial plant,

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Our team uses advanced Leica P20 ScanStations, Leica C10 ScanStations, Faro Focus 3D scanners, Faro Edge ScanArm and Faro Vantage laser trackers for delivering accurate measurement of buildings.”

*Sukh Singh*

Tejy employs the best 3D laser scanner for accurate data capture through the point cloud. Experienced BIM modelers of the company are acquiescent to the industry standards and deliver accurate laser scanning 3D modeling for clients across Houston, DC, Florida, Virginia, Baltimore, Maryland and Virginia.

3D Laser Scanning Work Process:

3D laser scanning building technology adds value to construction by saving the overall cost consumption and time.

•BIM engineers scan buildings, industrial plants and other physical objects using a 3D scanner for construction.

- Lidar scanners project a line of laser light on the surface of the object from every angle. Simultaneously, 2 sensor cameras measure the amount of changing shape and space between the laser lights in 3D.

- The light moves around the building surface area, eliminating site issues. The component shape gets recorded as millions of digital points in a virtual environment.

- High-frequency 3D Laser scanning equipment accurately captures 750,000 points per second. Sometimes Structured Light Scanning, CT scanning, CMM etc. are also used.

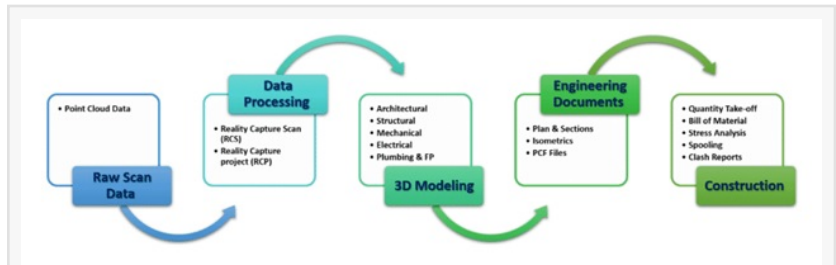
- Each device has a different spot size. In the case of a fixed CMM device, the laser spot is the contact surface position accuracy by x-y-z. While working on the CT scanner, the spot size acts as an x-ray created combination of the digital detector as well as the source.

- Using software applications like Autodesk ReCap, BIM modelers convert scan data to point cloud files, called Reality Capture Scan (RCS). The project is saved as a Reality Capture project (RCP), referencing the position of each point cloud file scan.

- These files are used further to remodel and design for project visualization in a common data environment (CDE) using software like Revit, AutoCAD Plant 3D, Navisworks etc.

Applications of 3D Laser Scanning Services:

- Industrial plant 3D scan data for re-designing projects
- The building design process for successful project execution



Process of Laser Scan to Point Cloud to BIM



As-Built BIM Modeling



Facility 3D Scanning

- As-Built BIM Modeling using software applications like Revit, Plant 3D, Solid works, etc.

- Scan to BIM conversion for getting a valuable insight of point cloud data into a 3D BIM model

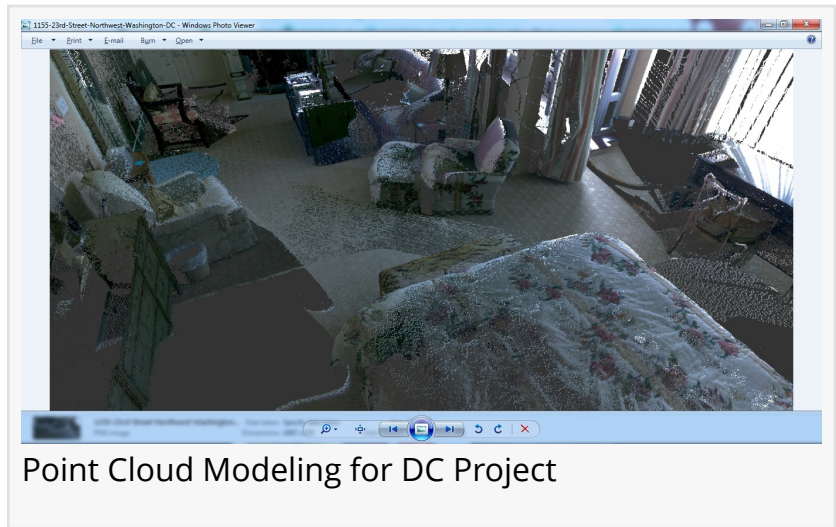
- Repair & Maintenance, capturing data from every corner of the building

- Operation management in real-time, gathering insight into the built environment

- Virtual Monitoring through 3D laser Scanners, capturing real-world data

- Virtual walkthrough of unexplored locations/objects through scan to BIM model

- Reverse Engineering reproducing point cloud digital representations of a model



#### Benefits of 3D Laser Scanning in Construction:

- Reduced risk & financial reliability, providing 360° access to present condition

- Informed decision making with confidence & improved collaboration

- Enhanced productivity & quality assurance throughout project life cycle

- Constructability review, identifying clashes during the design-build stage

- Executing renovation project on time and budget with 3D data

- Developing accurate data-rich virtual 3D model, with an overview of the building project

- Improved communication amongst stakeholders & team members

- Better scheduling, consistent planning & competent decision-making

- Accurate measurement & evaluation of the project progress

- Producing error-free data-rich 3D models, enabling better team collaboration

- Improved building health & safety management

Are you seeking 3D laser scanning services? Don't miss the chance to get optimized [scan to BIM services](#) for your future projects from Tejy Inc. Outsource your 3D laser scanning requirements from Tejy Inc. and access the quality of your data.

Sukh Singh, the V.P. of Tejy Inc. stated: "Our team uses the advanced technology of Leica P20 ScanStations, Leica C10 ScanStations, Faro Focus 3D scanners, Faro Edge ScanArm and Faro Vantage laser trackers for delivering accurate measurement of buildings and facilities."

#### Successful 3D Laser Scanning Projects of Tejy Inc.:

- 29 W Lexington Street Baltimore MD

- [BIM As-Built Model from Point Cloud](#) for DC Project

- Architectural BIM Services for Niagara Property Restoration
- As-Built Drawings for Arlington Road Project in the USA

To get started with 3D laser scanning services, contact Tejy Inc. BIM Service Provider in USA at 202-465-4830 or [info@tejy.com](mailto:info@tejy.com).

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