# INTERSTATES



# 3D LASER SCANNING

CREATING ACCURACY ESSENTIAL FOR A STRONG START TO YOUR PROJECT

Interstates is your scan to BIM partner. 3D scans can be used to create an accurate and comprehensive 3D point cloud of the inside and outside of existing buildings.

## WHAT IS LASER SCANNING?

This refers to the use of a scanner to create a 3D point cloud of an area for use in CAD, modeling, and BIM software. Interstates currently uses a Leica P40 Scanner which is black and white and a Leica RTC 350 Scanner that has color capabilities.

#### **HOW IT WORKS**

Laser scanning works by shooting a near infrared laser 360° around a fixed "Scanstation". This invisible, harmless laser digitally captures the dimensions and location in 3D space of any object the laser hits and reflects back to the scanner. Distances are measured based on the time it takes the laser to return to the scanner from the objects in the area being scanned. The scanner also registers the intensity of the laser returned to the scanner, giving objects different hues in the 3D point cloud.

After completion of the scanning process on site, the scans are tied together and registered, which gives us the final, single point cloud.

[ORIGINAL IMAGE]



[ORIGINAL IMAGE]



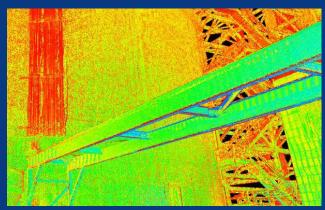
#### **YOU RECEIVE**

A Recap model will be created, which can be linked to drafting software and/or appended to Navisworks.

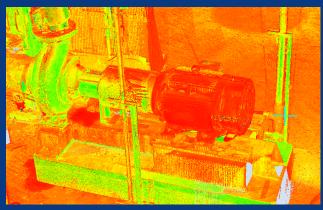
We will provide a .pts file. This is the raw scan data that can be imported into point cloud processing software and/or be used to create Navisworks and Recap models.

A .pts or .ptx file can be used by other disciplines to import into Recap and import into your CAD software.

[LEICA P40 BLACK & WHITE 3D SCANNED IMAGE]



[LEICA RTC 350 COLOR 3D SCANNED IMAGE]



### WHAT CAN LASER SCANNING DO FOR YOU?

This 3D point cloud can be used as a complete and accurate as-built in future renovation projects.



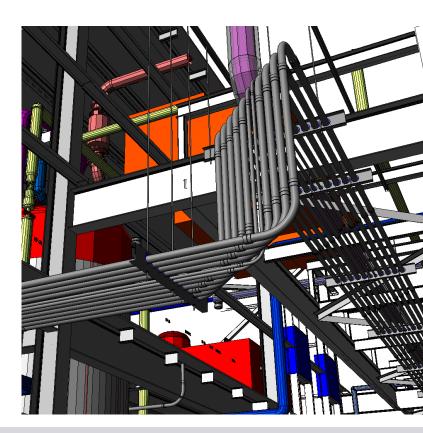
#### **ACCESSIBILITY**

The point cloud can also be used to verify measurements, allow off-site employees and contractors virtual access to your site without the time and financial output of a site visit, and aid in drafting of any rennovation/upgrade, as well as new construction.



#### **ACCURACY**

When planning upgrades to your facility, use the point cloud to verify location of equipment to avoid conflicts between new and existing components.



Ready to get started? Contact us today. 800.827.1662



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