



HIGH-DEFINITION SCANNING

High-definition (HD) scanning is a technology that incorporates the use of laser ranging to safely acquire accurate data that can be processed to create a scaled, digital 3D model of the scanned object or environment. Using the HD scanning system allows Ulteig's HD scanning specialist to capture the survey information without interfering with ongoing facility operations, traffic, or construction activities.

HD scanning can be conducted indoors or outdoors — and under any lighting conditions. The raw scan data can be used with software to view, pan, zoom, rotate in 3D, and obtain point-to-point measurements. Additional postprocessing can translate the data into accurate AutoCAD® drawings for design purposes or can be used for 3D visual flights. Whether the data stands alone, is processed into a 3D model, or is linked with a GIS database, this data can be used for many applications.

BENEFITS

- Reduce liability by safely capturing data from hard-to-access locations
- Better design surveys allow for lower construction costs and shorter project schedules
- Accurately and efficiently capture a vast amount of precise data in one scan
- Provide numerous viewpoints for design flexibility
- High level of detail
- 360-degree project photographs
- Less facility downtime
- Less disruption to a site's ongoing activities
- Reduction in costly revisits to project sites
- Availability of additional survey data
- Utilizing 3D animation allows clients to visualize without being at the site
- Detailed marketing data

APPLICATIONS

- Streets/highways/airports
- Railways/bridges/tunnels
- Facility management
- Plants and refineries
- Architectural/civil construction
- Historical building reconstruction or renovation
- Cultural heritage sites
- Piping and ductwork retrofits
- Fabrication quality assurance
- Accident reconstruction
- Crime scene investigation
- As-built surveys of complex facilities
- Building information modeling (BIM)
- Volume calculations
- Monitoring structure deformation
- Hazardous sites
- Sites with limited access or in difficult