Reality Capture Services

Whether your firm is in civil engineering, architecture, or manufacturing, it's likely that you need to capture existing conditions and store them in digital form. Reality capture technologies such as 3D laser scanning, mobile and aerial LiDAR, and photogrammetry can help. Benefits of reality capture include:

- Reduction or elimination of costly return site visits
- The ability to capture data on structures without disrupting people who are currently using the facility
- Faster and more accurate creation of building information models (BIMs)

Reality capture methodologies can streamline business practices and open up new opportunities. However, your staff may not be familiar with how to apply these techniques in ways that will support your specific business goals. Alternatively, your team may already be using this technology and are looking for new methods, such as using drones to capture project information.

IMAGINiT's Reality Capture Team can help organizations that are new to these tools, as well as to those who want to take reality capture to the next level. We provide assistance with customized training, project-based proof of concepts, and strategic business planning and project assistance.

Reality Capture Proof of Concepts

One reason that firms often delay implementing reality capture technologies is because they may not feel knowledgeable enough about the associated workflows and processes needed to support the business.

Doing a proof-of-concept is a great way to show what is possible with reality capture. During IMAGINiT's Proof-of-Concept service, our experts work side-by-side with your team. By the end of the project, your staff will have a clearer understanding of how reality capture technologies could be implemented in-house. In the event that you decide to outsource certain aspects of future projects, the team will know what to specify and the right questions to ask of vendors.

IMAGINiT offers proof of concepts for high definition scanning, as well as aerial photogrammetry:

- **High Definition Scanning.** During an HDS proof of concept, the IMAGINiT team shows the Leica Geosystems HDS workflows and processes in the context of your environment, using a live project. HDS hardware and software are demonstrated on-site. In addition, part of the service is post-processing which includes the workflows needed for desired deliverables in your design environment.
- **Aerial Photogrammetry.** During an aerial photogrammetry proof of concept, the IMAGINiT team applies the workflows and processes associated with aerial photogrammetry in the context of your business, using a live project. Hardware and software are demonstrated on-site. As with HDS proof of concepts, a post-processing demonstration is included that covers the workflows needed for desired deliverables in your design environment.

Proof of concepts are valuable because they convey the capabilities and potential of reality capture using real projects.

Olsson Associates Partners With IMAGINiT to Gain High Definition Scanning Skills

Olsson Associates is a comprehensive engineering and design solutions firm that works on public and private infrastructure projects. The company has offices in more than 20 locations across the Midwest and Southwest United States. As Olsson Associates was growing rapidly, it was clear that the team needed to build competencies around high definition scanning (HDS).

Olsson Associates turned to IMAGINiT for assistance. The firm rented equipment and licenses for Leica Cyclone Register, Publisher, and Cloudworx from IMAGINiT. Training was conducted in the field on an active, public utility project. "Scanning an actual client site was fantastic. We were learning and at the same time creating a billable deliverable," said Steve Van Voltenberg, Survey Practice Group Leader at Olsson Associates.

After one day of site scanning was completed, IMAGINiT's experts spent three days at the Olsson Associates office showing the team how to use the software. Since the IMAGINiT specialist had a background in civil engineering, he ensured that the instruction was tailored to the project at hand.

After this introduction to reality capture technologies, Olsson Associates decided to purchase their own scanner. They feel that HDS will open new lines of business for the firm. In addition, adoption of cutting edge technology makes the company more attractive to tech-savvy talent in the employment market.

Customized Training

Because different industries use reality capture in different ways, IMAGINiT tailors its classes to each client's requirements. For firms that are just starting to implement reality capture, training on fundamentals is available. For more seasoned reality capture users, however, courses on field practices and workflows are beneficial.

- **Fundamentals.** To bring users up to speed on reality capture, training is offered in three disciplines.

  - **High Definition Scanning (HDS).** This course focuses on the Leica Geosystems HDS product suite and capabilities, including post-processing activities.

  - **Autodesk ReCap.** Gain a workflow-based understanding of ReCap products and capabilities. At the conclusion of the class, attendees understand what is required to create a deliverable that meets their industry's needs.

  - **IMAGINiT's Scan to BIM.** In this class, you can learn how to create a BIM deliverable using Scan to BIM capabilities.

- **Field Practices for HDS.** Gain a fundamental understanding of Leica ScanStation field practices and capabilities. The duration of the training varies based on your needs.

- **Process-Based and Workflow.** This course provides an advanced workflow-based understanding of the Leica Product Suite. At the conclusion of the class, you'll understand which capabilities are needed to generate a deliverable that meets your needs.

Strategic Business Planning & Project Assistance

IMAGINiT's experts provide a wide range of strategic business assistance to help clients take advantage of reality capture technologies. Planning and project assistance is always tailored to fit each firm's specific requirements. Two examples of these services are specification oversight and project assistance. However, the sky's the limit!

- **Specification Oversight.** This service is for organizations that are not yet ready to perform HDS in-house. The goal is to equip your team with HDS industry expertise, so they can qualify and specify outsourced laser scanning services. At the conclusion of a specification oversight engagement, teams will understand how to write an effective spec and RFP to ensure that HDS data can be gathered successfully from an outside vendor.

- **Project Assistance.** When working on reality capture project data, teams often find over-the-shoulder assistance helpful. IMAGINiT experts are skilled at providing project-based support and the duration of this service can be customized based on your needs. Project assistance can be delivered remotely on an hourly basis. Alternatively, IMAGINiT resources can assist employees on-site.

Why Choose IMAGINiT?

When it comes to reality capture, IMAGINiT brings a unique combination of technology and expertise to the table for clients. We partner with industry hardware and software leaders like Leica Geosystems and Autodesk. By offering the latest technologies, we help clients create the highest quality project deliverables. In addition, the IMAGINiT team has extensive experience not only with the hardware and software needed for reality capture, but all the workflows required to transform captured data into design and engineering deliverables.

IMAGINiT is one of the select organizations that understand not only how to use reality capture hardware and software, but also how the data will be used downstream – including within design, facility management, and creating as-builts for renovations and retrofits. Our experience in multiple industries ensures that our services will meet your organization's unique requirements.

About IMAGINiT Technologies

IMAGINiT Technologies, a Rand Worldwide Company, is the world's largest provider of enterprise solutions to the engineering community, including the building, manufacturing, civil and mapping industries. With over 25 years of experience, and 45 offices throughout North America, we provide the expertise, training and support to help companies realize the full power of design technology, maximize ROI and gain competitive advantage.

IMAGINiT is a leading provider of Autodesk software solutions and the largest North American Autodesk Authorized Training Center (ATC) partner. All of our locations are supported by a vast pool of engineering resources focused on developing real-life business solutions for their local clients.

Leica Geosystems

AUTODESK Platinum Partner

Specialization
Building
Civil Infrastructure
Product Design & Manufacturing
Government
Education

Value Added Services
Consulting Specialized
Product Support Specialized
Authorized Training Center