

Burgess & Niple Delivers Fast and Accurate 3D Representations with Leica RTC 360 Scanner



The Organization

Headquartered in Columbus, Ohio, [Burgess & Niple](#) (B&N) is a nationally recognized engineering and architecture firm dedicated to improving communities with practical infrastructure solutions. For more than 100 years, its employees, which include engineers, architects, scientists, and technical support staff have demonstrated their passion by maintaining an unyielding focus on designing solutions that meet client specifications and make a positive impact on the cities, towns, and villages in which they live and work.

B&N has pioneered technologies and techniques, and as technology evolves, they continue to apply innovative and cost-effective solutions.

BURGESS & NIPLE

The Challenge

To be considered for a series of large, multi-year government contracts to rehab several buildings, B&N needed to build its laser scanning capabilities to capture existing conditions and store them in digital form.

"We had used scanners on a small scale, and in anticipation of future needs, had done some research on reality capture technologies," said Patty Scharf, Civil Engineer, B&N. "Once we had the requirements for this specific government project, we needed to find, secure, and learn to use the hardware and software that would allow us to meet those requirements."

Terry Mullins, Information Technology Business Analyst, B&N, continued, "Because the buildings would be in use, we would need a fast scanner to work within the time allotted for us to be in each area. We knew we would not have time to complete the scans in one session, so we needed a scanner with geolocation capabilities that could tell us where we left off, so we could resume at the right place and end up with an accurate full picture."

The Solution

Since Terry had a successful relationship with IMAGINiT and had previously discussed reality capture technologies, he reached out to his IMAGINiT account manager who brought in experts from their Reality Capture Services team. Patty and Terry described their current needs, and the IMAGINiT team asked about other business objectives that may benefit from scanning capabilities. Based on those discussions, IMAGINiT proposed a solution that included:

1. **Leica RTC 360 Scanner**, a small, lightweight, intuitive reality capture solution with geolocation capabilities that delivers accurate scans much faster than other models

2. Initial two-day custom hardware and software training:

- a. For the persons that would be using the scanner
- b. For the office personnel that would be processing the data

3. Custom two-day training at the job site to complete actual scans in a real-world environment

4. ProductivityNOW, IMAGINiT's eLearning and support platform, for storing and sharing the custom training materials delivered by the IMAGINiT team. "ProductivityNOW has been a tremendous learning resource for our staff," said Patty. "Specifically, the Autodesk content has been invaluable to our new and seasoned engineers alike."

5. Ongoing support for answers to hardware and software questions as they arise

The Results

"Because of our past experience with IMAGINiT, we had complete confidence in their recommendation and submitted a proposal to the government agency within the short turnaround timeframe," said Patty. "We were awarded the work and have been delivering on our promise to cause minimal disruptions during the scanning process and accurately capture the spaces in 3D."

"One thing that stood out to us was when we first started on this journey with IMAGINiT was that the reality capture expert said, 'We will not let you fail.' And they haven't," said Terry. "IMAGINiT provided outstanding training and continues to be there for us when we run into obstacles. Plus, because we got a scanner that would meet needs throughout our organization, several other groups within B&N are benefiting from its capabilities and we have now purchased a second scanner to support the additional usage."



Scan of a historic stone arch bridge

In addition to using the RTC 360 scanner on the government projects, B&N has used it for the following:

- The Wastewater group has scanned several treatment plants
- The Structural group scanned a building with bowed columns to determine if it was structurally sound
- The Bridge group scanned a historical stone arch bridge to review its condition so a decision on whether to rehab or replace could be made

"I appreciate that IMAGINiT invests their time in getting to know our business, vision, and goals, even when we don't have an immediate need for products or services," said Patty. "This connection means we can act quickly when an opportunity arises and provide a proposal that clearly describes our capabilities. IMAGINiT's ongoing support helps us deliver a positive client experience."

Interested in how reality capture technologies can help you win more business? [Contact us](#) today.

Solutions Beyond Software

IMAGINiT Technologies, a division of Rand Worldwide, helps architectural, engineering and construction teams become more proficient in the use of technologies to design, develop and manage complex projects faster and more cost-effectively.