



# **GIS NEWSLETTER**

## SEPTEMBER 2023



مجموعة مايكرو سنتر  
MICROCENTER GROUP



## ArcMap Continued Support

ArcGIS 10.8.1 is the current release of ArcMap and will continue to be supported until March 01, 2026, as established in the [ArcGIS Desktop Product Life Cycle](#). We understand there may be questions as to what's next for ArcMap inside ArcGIS Desktop. By viewing the [ArcMap Continued Support](#) page, you will be able to find the answers to most, if not all, of your questions regarding continued support of ArcMap as well as resources to help you transition your work moving forward into several Esri products such as ArcGIS Pro.

While continued support has a timeline, ArcMap does not. If ArcMap is the software that helps you be successful, you can continue to use it, as long as your license is valid. Keep in mind, our desktop development efforts are focused on ArcGIS Pro, and we encourage you to migrate to ArcGIS Pro.

### ***Will Esri issue any updates or patches to the ArcMap 10.8.x releases?***

Yes. While 10.8 is the last major release of ArcMap, we will continue to update and patch the 10.8.x releases to address security and third-party issues as established in the [ArcMap Product Life Cycle](#).

### ***What does Esri recommend that customers do?***

We recommend that customers start migrating their projects and workflows from ArcMap to ArcGIS Pro.

## ***What resources are available to help customers migrate from ArcMap to ArcGIS Pro?***

There are many resources available to help our users migrate from ArcMap to ArcGIS Pro including Esri Academy, Learn ArcGIS lessons, blogs, videos and books. Here is a list of examples:

- [Discover ArcGIS Pro](#)
  - [Try the ArcGIS Pro Trial](#)
- [Learn ArcGIS](#) – Industry and workflow focused tutorials
  - [Try ArcGIS Pro](#) – A tutorial series to get started with ArcGIS Pro.
  - [ArcGIS Pro content](#) – See all ArcGIS Pro content available in the Learn catalog.
- [ArcGIS Pro Documentation](#)
  - [ArcGIS Pro FAQ](#)
  - [Download, install and authorize ArcGIS Pro](#)
  - [Named-user licensing](#) – learn how to enable ArcGIS Pro through ArcGIS Online or ArcGIS Enterprise.
  - [ArcGIS Pro Quick-Start Tutorials](#)
  - [Keyboard Shortcuts](#)
- [Esri Academy](#)
  - [Migrating from ArcMap to ArcGIS Pro](#) – a two-day instructor-led class.
  - [ArcGIS Pro Fundamentals](#) – Learning plan covering the basics, essential workflows, data and more.
  - [ArcGIS Pro courses](#) – See all ArcGIS Pro content in Esri Academy.
- [ArcGIS Pro blog posts](#) – Stay current with the latest ArcGIS Pro blog posts
- [Esri Press](#)
  - [Switching to ArcGIS Pro from ArcMap](#)
  - [Getting to Know ArcGIS Pro 2.8](#)
  - [Python Scripting for ArcGIS Pro](#)
- PDFs
  - [ArcGIS Pro Migration Guide](#)
  - [ArcGIS Pro Terminology Guide](#)
- Migrate ArcObjects SDK Customizations to ArcGIS Pro
  - [ArcGIS Pro SDK for .NET Resources](#)
  - [Migrate to the ArcGIS Pro SDK](#)

## ***Is there an option for organizations who must stay on 10.8.x and are interested in receiving Technical Support beyond 2026?***

Yes. Esri Premium Support may be an option for customers to receive one additional year of Technical Support. To learn more, please contact MicroCenter team.



## Esri Releases New Desktop Software to Easily Synthesize All Sources of Information

ArcGIS AllSource Connects Disparate Data, Enabling Actionable, Holistic Intelligence for Decision-Makers.

Globally, intelligence analysts and auditors in national security and public safety organizations must use multiple data sources for their analyses. Increasingly, organizations are turning to geographic information system (GIS) technology to provide the context of location for their data. This geographic approach gives professionals the understanding they need in order to do everything from protecting assets, people, and property to addressing cyber threats and more.

To support users in the intelligence and national security community, Esri, the global leader in location intelligence, has released ArcGIS AllSource. The new desktop software turns raw data into decision support by combining data from multiple sources. Analysts can leverage built-in link analysis, 2D and 3D maps, timelines, imagery exploitation, graphs, and video to uncover patterns, trends, and relationships in data to inform decision-making.

“As GIS data becomes more pervasive throughout organizations, intelligence analysts and auditors need a tool that integrates that information with the rest of their data,” said Patty Mims, Esri director of business development, global national government. “ArcGIS AllSource is that tool. We are bringing the support of the entire ArcGIS Enterprise system—and the same powerful analytic desktop software capabilities that our users have come to expect from GIS products—to intelligence professionals.”

ArcGIS AllSource is designed for intelligence professionals working in civilian intelligence agencies, commercial organizations, law enforcement, and the military. By integrating with existing organizational ArcGIS infrastructure, AllSource saves analysts time and reduces spending. The software is compliant with industry standards, allowing professionals to share and leverage data easily while working with other systems and applications.

“ArcGIS AllSource is scalable, focused, and relevant to analysts’ daily challenges and needs,” said Dan O’Leary, director at Esri’s regional office in Washington, DC. “That means analysts can work off one system to fuse their data sources with geospatial intelligence from the rest of their organization, using focused tools for threat assessments, fraud detection, investigations, indications, and warnings. Intelligence professionals can answer questions, forecast events, disseminate products, and support operations by using the tool to analyze spatial, temporal, and other relational data.”

## How it works

- Integrate data from multiple sources
- Visualize your data
- Analyze your data
- Share actionable intelligence

To learn more about Esri’s ArcGIS AllSource, visit [go.esri.com/ArcGISAllSource/overview/pr](https://go.esri.com/ArcGISAllSource/overview/pr).





## Scan-to-BIM method in Construction

### Abstract

Laser scanning 3D technology has become an indispensable tool in the fields of Architecture, Engineering, and Construction. By obtaining a point cloud through laser scanning and creating 3D models, professionals can now produce highly detailed computer images of buildings and structures.

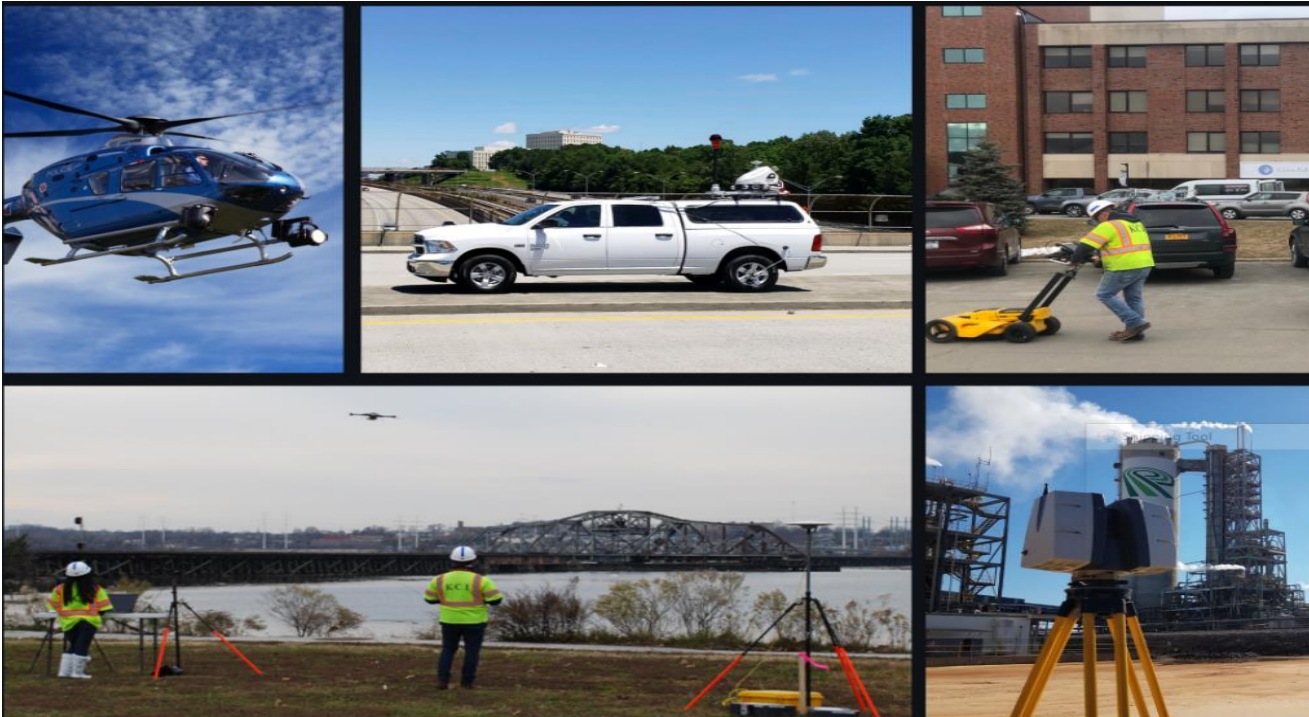
This technology revolutionizes how space is organized and planned. Architects can accurately capture existing conditions of a site or building, allowing them to design more effectively. Engineers can analyze structural elements with precision, leading to safer and more efficient construction processes. In the construction industry, laser scanning 3D technology enables better coordination between different teams and reduces costly errors during the build phase.

The ability to create virtual walkthroughs using these detailed 3D models provides clients with a realistic visualization of their future projects. This enhances communication between stakeholders by facilitating better understanding and decision-making.

The integration of laser scanning 3D technology into BIM or GeoBIM workflows allows for a more comprehensive understanding of the built environment. Detailed data collected through laser scanning can be seamlessly incorporated into existing models, enriching them with real-world information that was previously unattainable.

## Survey Platforms

In order to build a virtual representation of a site, information is integrated from a variety of sources, including LiDAR scans, high-resolution drone imagery, and traditional survey for ground control. The resulting point clouds, 3D surface meshes and survey data offer a true and as-built. This data can be utilized in the engineering design, urban planning, Housing Infrastructure industry to help avoid delays and cost overruns.



### Infrastructure data with 360- degree Panoramic imageries

- 360 -degree Panoramic & LiDAR survey using Terrestrial laser scanning (TLS) and Mobile laser scanning (MLS) for the building exteriors & interiors
- 360-degree Street view survey
- BIM for Floor Plan update and mapping of all assets with texturing.

## Application-Specific workflow solutions

Pegasus: MapFactory for AutoCAD /ArcGIS software suite is the complete solution for the Pegasus Two mobile mapping systems, covering the end-to-end workflow – from data collection to feature extraction. The intuitive user interface combined with the semi-automated feature extractions allows you to obtain your project deliverables fast.

The Leica Pegasus Two Mobile Mapping machine is mounted on a vehicle to collect 360-degree Panoramic data and driven on all motorable roads.

It simulates the following: -

- Presence of one being in the spot virtually to look around left, right, up and down as desired as well as to zoom into specific objects
- The viewer clicks any point on the image to drag it in the desired direction
- Conventionally these are acquired all along the streets or inside building premises to have a detailed representation of the real world

360-degree Panorama captures pictures of the real world by stitching together normal camera pictures. It can show both outside and inside buildings, and it can use photos from its own users.



Fig 01: Basic Features of 360- degree Panoramic Images

## Building Indoor & Exterior Survey

The Panoramic & LiDAR Data acquisition of the building areas can undertake using FARO 350 and terrestrial LiDAR equipment. Ricoh & DSLR cameras are also can use for collecting data for signboards, photographs etc. Attribute Survey for POI is done using Mobile Application.

## Panoramic & LiDAR data Registration

The surveyed raw can be processed in FARO software to register & stitch the data together to create a seamless dataset using the inbuilt algorithms and GCPs collected from field.





Fig 02: Exterior Survey

## Advantages

- Panoramic images show actual ground reality at 360 –degree can be utilized for visualization purposes. However, LiDAR measurements can reveal minute details and provides accurate X, Y and Z values which are very much required for creating BIM Models with high degree of accuracy that is required for providing detailed information for all assets.
- It allows rapid, cost-effective, accurate mapping of building assets and Architecture. Some of the advantages of the technology include generating faster results with better quality and minimum ambiguity.
- The information acquired is more complete with higher levels of detail. Moreover, the technology is flexible allowing data capture under a variety of environmental conditions keeping safety in mind especially in hazardous locations.
- In combination with LiDAR point cloud, Panoramic Imagery provides accurate X, Y and Z values which are very much required for inspection and further planning.

## Building Interior Scanning

The building sections for getting the best locations for scanning with optimum quantity and to ensure the 360 Degree coverage.



Building - floor level panoramic view

## BIM Modeling

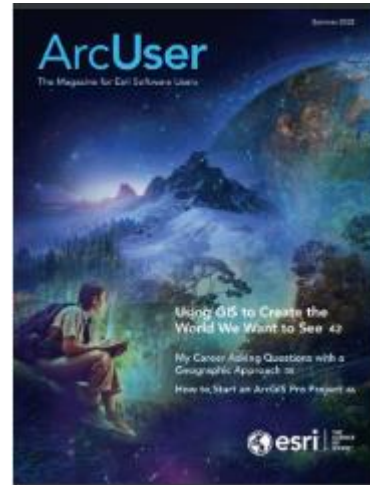
Using the registered Pano & LiDAR data as input, the following activities can be performed in BIM software to create a digital twin model of the entire buildings.

- Creation of Walls, Doors, Windows, Flooring, Ceiling. This is used to produce the Updated Floor Plans
- Modeling of all Assets (Fixtures, lights, sprinklers, speakers, fire extinguishers, A/C units etc.) visible from Pano/LiDAR data, as per the engineering standards
- Modeling of all 3D Furniture's visible from Pano/LiDAR data
- Applying the Material, images, Textures to the models to create a realistic twin of the data.

## ESRI Publications



ArcNews Summer 2023  
[Read This Issue](#)  
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ArcUser Summer 2023  
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## MicroCenter Group

Founded in 1983, MicroCenter Group is a pioneer in providing information technology solutions in Bahrain. Initially it was started with the aim of providing customized IT solutions to small and medium organizations but today with over 100 customers, both in the Government and private sector it has attained a leadership position in the industry within the country. With four group companies and an office in Saudi Arabia, today it has diversified into various other businesses that include IT Business Solutions, Geographical Information Systems (GIS), Utility network GIS surveys, LiDar Technology / BIM modeling, and Digital media solutions & Specialized training.

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