

Accurate Point Cloud-based Measurements for Every Stakeholder



NavVis, a leading provider of indoor spatial intelligence technology and enterprise solutions, has released NavVis IndoorViewer 2.6. This major software release includes a new measurement tool that lets users take highly accurate measurements based on point clouds in realistic browser-based digital buildings. This release also makes additional features available to structured e57 point cloud files, including automatically generating highly detailed floorplans and routing.

NavVis IndoorViewer is a popular deliverable among building stakeholders without the technical expertise to work with point clouds and modeling software, thanks to the realistic digital buildings and intuitive interface. One of the features that has proven to be useful among users across multiple industries is the measurement tool. It enables users to take

measurements remotely on any device, saving time otherwise spent traveling to the site.

Accuracy and usability

With the release of version 2.6 of [NavVis IndoorViewer](#), the Germany-based company aims to reach a major advance in the accuracy of virtual measurement tools. The tool has been redesigned to overcome two of the biggest problems with virtual measurement tools – accuracy and usability. On the one hand, point cloud measurements are quite accurate. But often these software tools are not accessible or even usable for a wide range of building stakeholders who lack the expertise in working with point clouds. If, on the other hand, the tool uses images or even meshes, which are more user-friendly than point clouds, the tools are usually not reliable enough to produce accurate results.

The new measurement tool in NavVis IndoorViewer is developed to combine the best of both worlds, thanks to a patent-pending magnifying feature that appears when taking measurements in the realistic 360° view. The magnifying feature reveals the exact section of the point cloud behind the image and lets users pick the point cloud point as the basis for a measurement while benefiting from the intuitive interface of the fully immersive walkthrough.

“When redesigning the measurement tool in NavVis IndoorViewer, we wanted to make sure that a wide range of stakeholders in every industry that works with built environments could benefit from the accuracy of point clouds when taking virtual measurements,” said Georg Schroth, [NavVis](#) CTO. “We are confident that the new magnifying feature in NavVis IndoorViewer achieves our goal. Now even stakeholders that are unfamiliar with point clouds have an easy, intuitive way to take measurements based on this highly accurate real-world data.”

Fully immersive 3D walkthrough

In addition to making strides in the accuracy of remote measurements, the interface of the tool has also been fully redesigned. This includes a new slider function that lets users view the 2D floorplan and 3D walkthrough side-by-side or move from one view to the other. The dual view provides an overview of the entire building so that users can easily locate an asset or area while also viewing the location in the realistic 360° view. The fully immersive walkthrough makes it possible to virtually move through the area being measured or inspect the asset, as if the user were on site. Measurements being taken show up in both views.

The release of NavVis IndoorViewer 2.6 also introduces new feature support for e57 point cloud files captured by static scanners. Previous NavVis IndoorViewer releases have included a popular feature that lets laser scanning professionals upload structured e57 point cloud files and automatically generate realistic, fully immersive 360° walkthroughs that can be published and shared with clients as a web-based link.

With the launch of NavVis IndoorViewer 2.6, two popular features that were previously only compatible with scan data captured by NavVis hardware are now available for point clouds uploaded as structured e57 files. The first is the generation of a navigation graph, which makes it possible to turn static scans into a fully immersive indoor routing tool. The second is the automatic generation of highly detailed floorplans. Now point cloud files uploaded as structured [e57 files](#) can be turned into digital floorplans in a few clicks.



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