

NavVis Precision SLAM Software Promises to Solve Errors



The [Navvis M3 Trolley](#) has been upgraded with new software and exploits SLAM to increase speed and efficiency when scanning buildings. It is capable of producing 360° images, point clouds, floorplans, and infrastructure data. The mobile 3D scanning device uses six high resolution cameras to capture 360 degree panoramic images, as well as three high-definition laser scanners that record up to 40,000 points per second within a 30m range. Additionally, NavVis' browser based [IndoorViewer software](#) brings this data to life by enabling users to access and interact with 3D building models and maps from any device.

As with most SLAM solutions, this software for capturing and chaining highly accurate individual measurements results in “an accumulation of noise and tiny measurement

uncertainties.”

“Over time the estimated motion will start to deviate from the true motion, which is known as ‘drift error’. This can often be observed as a slight bending of long corridors that are actually straight. With NavVis newest Precision SLAM technology, the company has significantly reduced drift error and improved the SLAM accuracy.” the company says.

“It is widely known among SLAM developers and users that complementary approaches such as loop closures or ground control points are needed to achieve a high accuracy. However, with the Precision SLAM technology we have developed an approach that not only nicely complements the former techniques but is especially evident when these have little effect or cannot be used.” said Dr. Stefan Romberg, head of mapping and perception at NavVis.