

Vercator Desktop Delivers Efficient Point Cloud Processing



Vercator Desktop software is developed by Correvate, a UCL spin-out company whose vision is to improve geospatial understanding by delivering unrivalled 3D point cloud data processing. The new software delivers fast, automatic 3D point cloud registration and data processing by exploiting an innovative approach which utilises natural features in the environment to register data sets. Accuracy is enhanced as a result with traceable, repeatable reporting. Initially targeted at the construction sector, Vercator Desktop promises to improve the productivity of BIM users in the supply chain.

As those involved in the delivery of a construction project increase their appreciation of BIM, the value it creates through improved supply chain collaboration and process efficiency is growing. 'Scanning-to-BIM' is the process of taking a 3D laser scan of a physical space, such as a potential construction area or maybe a crime scene where measurement data could be critical to informing decision-making. Improving this process can bring much-needed time and cost savings as they help speed up project evaluation and visualisation, de-risk key decisions earlier in the workflow and allow better project planning from the outset.

Target-less scanning brings about efficiency improvements in the field for surveyors by removing the need for target placement. Automatic point cloud registration in Vercator means users no longer have to manually register targets, which users would typically have to carry out with conventional registration software. This can save valuable time at the laser scanning stage and reduce the likelihood of user error, therefore minimising the risk of alignment errors.

When compared to traditional methods, Vercator Desktop's automatic scan alignment significantly reduces registration time, although exactly how long the registration process will take depends on the quantity and complexity of the scans. However, the time-saving benefit increases in line with the number of scans to be processed, bringing greater savings on larger projects. Tests to date have seen results of up to a 90% time-saving when compared to conventional alignment, although not at the expense of accuracy, meaning users spend less time staging a scan, less time extrapolating the data, but still yielding reliable and robust results to within an accuracy of $\pm 2\text{mm}$.

Currently, Vercator Desktop supports the following file formats for data input: xyz, ply, ptx, e57, fls; and xyz, ply for output. The software also supports the most common terrestrial laser scanners, allowing users to easily transfer and register data. File formats are under a continuous improvement programme to extend compatibility further, so additional improvements will follow in the near future.

Vercator Desktop was officially launched on 2 July with a FREE 30 day trial available to all users upon approval of application. To apply for your free trial please visit <https://correvate.co.uk>. Following the trial, users can subscribe to Vercator Desktop for £100 +VAT per user, per month, billed quarterly, then £80 +VAT per user, per month, for users within the same organisation.

Correvate's future plan involves the release of a cloud-hosted version of the software early in 2019, enhancing the functionality of the desktop version. Once the cloud version becomes available, subscribers will have the option to transfer their licence and receive credit for the cloud product based on their remaining licence for the desktop product. Subscribers also have the option to join an advanced early access testing of the cloud product in advance of its launch when available. For more information, please visit: <https://correvate.co.uk/>.