

Arithmetica Previews Point Cloud 3D Modelling Software



Arithmetica has given visitors at SPAR 3D 2017 an insight into how quick and easy it is to convert the vast point clouds generated by modern laser scanners into manageable 3D models. Dubbed 'simplified surfaces', the latest development by Arithmetica can deliver a tenfold decrease in the size of the resulting 3D vector models.

[Pointfuse](#) is all about making laser scanned data more usable, commented Mark Senior, business development manager at Arithmetica. Pointfuse bridges the gap between the laser scanning hardware solutions, increasingly being developed to capture more data, faster and with better accuracy, and the huge array of specialist software solutions used within the heritage, architecture, engineering, construction, manufacturing, infrastructure and mapping sectors, for example, he said.

3D vector models

Simplified surfaces, available in the next release of Pointfuse due out later this year, will significantly reduce the file size of 3D vector models created from laser scanned point clouds. In simple terms, it recognises similar characteristics across a surface and then, rather than duplicating the same data, groups or simplifies data by the shared attribute, continued Senior. This results in a reduction in model size by a factor of ten, making ongoing use of the model easier, faster and more efficient.

The recent launch of Pointfuse V2 demonstrated a new paradigm in the processing of laser scanned point cloud data. Now with a simple 'one touch one button' approach, the new techniques in Pointfuse V2 not only convert point clouds into 3D vector models with accurate geometry, but also enable discrete selectable surfaces in these models to be isolated and manipulated in third party software to a greater extent than ever before.

Pointfuse V2 is a modelling engine that delivers flexible way of converting the vast point cloud datasets generated by laser scanners or photogrammetry into high fidelity vector models. Designed for anyone capturing or using point cloud data, Pointfuse V2 uses advanced statistical techniques to create vector models which can then be manipulated using any industry-standard CAD system.

[Click here](#) to see an interactive Pointfuse 3D model of a gas station site.