CASE STUDY

Veris supercharges digital construction workflows with Veesus software

Challenge	Solution	Results
▶ Existing point cloud manipulation tool discontinued ▶ Entire digital construction workflow put at risk	▶ Veesus Arena4D and Point Clouds for Rhino plug-in ▶ Allows for easy manipulation and editing of point cloud data natively in Rhino	▶ Workflows that deliver high-quality projects while saving time ▶ A strategic partner for increasing project efficiency at Veris

About the company – Veris

Veris is Australia's largest geospatial consulting firm, employing over 500 people in 20 locations across Australia. It offers a wide range of geospatial services, including surveying, urban planning, metrology-grade scanning, and hydrographic surveying. In particular, Veris is the market leader in digital construction projects, using spatial data to create digital twins, point clouds, and BIM models for clients in the private and public sector.

The Challenge

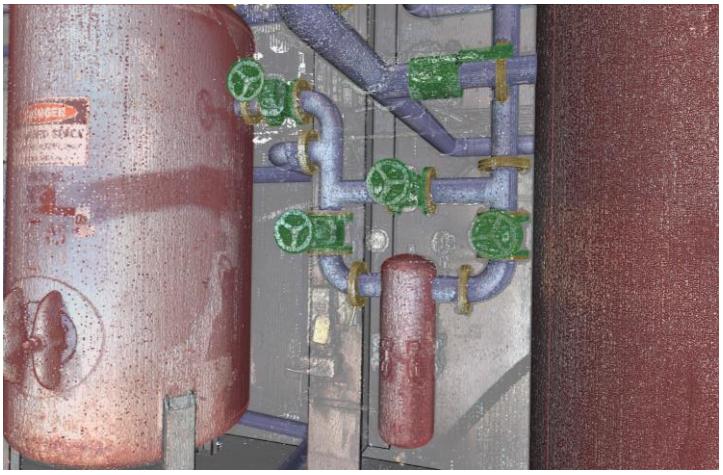
Legacy point cloud software in an evolving workflow

To deliver its digital projects for clients, Veris is a heavy user of point cloud data. Gathering data using handheld, tripod-mounted, mobile, and aerial scanners, the team is often tasked with assembling large volumes of point cloud data for clients. Nick Herath, Digital Engineering Manager, explains:

"Our clients often use our point clouds as the basis for their construction projects – or presenting them to their clients down the line. With that in mind, our focus is on pulling these massive datasets together and ensuring they are top quality."

The team hit a snag when a key piece of software in their workflow, their point cloud manipulation tool, was bought by a new owner who shut down all development in the software. Now using a legacy product, the team knew they were working on borrowed time.

"With all our other software programs still being updated and improved, it was only a matter of time before our point cloud tool wasn't able to take advantage of new features that would save us time and money," says Andrew Herath, 3D Modelling Manager at Veris. "Worse still, our legacy software could stop working with the rest of our workflow altogether, leaving us with no way to manipulate point cloud data – or with very time-consuming workarounds."



Using Point Clouds for Rhino, Veris created a highly detailed 3D model of this machinery with key elements such as joints and valves colourised. Here you can see the 3D image layered over the original point cloud.

Advanced 3D model created in Rhino based on point cloud data. Veesus enables Veris to work on point clouds of any size natively in Rhino – meaning this building exterior can be managed with ease.

“It’s meant we can work so much more effectively. None of the other tools we use to work with point clouds compares.”

Nick Herath
Digital Engineering Manager, Veris

The Solution

Veesus Arena4D and Veesus Point Clouds for Rhino plug-in

Thankfully, Veris discovered Veesus and started using both Arena4D and the Point Clouds for Rhino plug-in.

Veesus Arena4D enables users to view and manipulate massive point cloud files and other GIS data incredibly easily. Users can annotate, measure, and edit point cloud files, as well as export to a variety of common formats for use in downstream design packages. Arena4D can also create still images and animated videos of point cloud data.

Veesus Point Clouds for Rhino enables users to work with point clouds natively within Rhino. Users have access to the full range of point cloud editing tools and can combine these with Rhino’s powerful design capabilities to create clean point cloud models and new 3D designs based on accurate scan data effortlessly.

Nick uses Arena4D to create beautiful visualisations of data and designs for clients, as well as to run clash detection between designs and as-built conditions. “I especially love how you can bring in other GIS data, overlaying point clouds with CAD and BIM drawings to create this incredibly rich view of a project.”

Andrew and his team of 3D modellers work with the Point Clouds for Rhino plug-in, creating as-built CAD models based on the data generated by Veris’ 3D scans. The plug-in enables the team to work with massive point clouds without increasing the strain on their computers, moving through models without any lag.

“It’s meant we can work so much more effectively,” he says. “None of the other tools we use to work with point clouds compares.”

The Results

A game changer for projects

The most obvious result for Veris is that the Veesus software has slotted into place in their workflow with minimal impact, keep the team efficient and productive.

Beyond that, Veesus is helping to further improve the quality of the work that Veris does, without adding cost. Andrew explains:

“We need to remain competitive – but quality is one of our core values. Veesus lets us manage both those things by helping deliver excellent work, fast.”

The work the team is producing using Veesus is having a material impact on clients too. One public sector client turned to Veris for help with a project; using Veesus helped save millions of dollars in cost, avoid overrun, and protect the client’s reputation.

“That project would have been impossible without Veesus,” Andrew comments. “They don’t just make us look good; they make our clients look good to their clients.”

The future looks bright for the partnership, too. Veesus is already being used by other departments at Veris, including hydrographic and land-based surveys. Nathan Quadros, Digital and Spatial Lead for Veris, sums up:

“Part of our strategy is to make our modelling more efficient. We need to get products to clients quicker, and improve the quality of our data. I’m talking with Nick and Andrew every month about how to push the boundaries of what we do, and Veesus is just the kind of partner who can help us get there. I would say that Veesus is a core part of our strategy going forward.”