



**euclidean**  
UNLIMITED.

**geoverse™**



WHAT WOULD  
IT MEAN IF  
YOU COULD  
VISUALISE  
ALL YOUR DATA  
IN LESS THAN  
A SECOND  
FROM  
WHEREVER  
YOU ARE?

geoverse™

# ACCURATE, REAL-TIME 3D DATA VISUALISATION.

Geoverse™ delivers instant, interactive access to your entire point cloud data set from any computer – regardless of size – in less than a second.

**Geoverse™ is the new software package that is purpose-built for the Geospatial industry. It allows Geospatial professionals to visualise unlimited quantities of point cloud data from LiDAR, photogrammetry or any other data source.**

Geoverse™ point cloud rendering is based on Euclidean's revolutionary Unlimited Detail (UD) technology. This technology is able to handle the vast amounts of LiDAR data — which can be produced at rates of up to two million points per second — in a way previously unimaginable on normal computers.

The Geospatial industry has vast quantities of unmanageable point cloud data; data difficult to store, challenging to deliver and time consuming or impossible to visualise.

Euclidean's UD technology features a 3D search algorithm that can render unlimited quantities of point cloud data in real-time. As the technology efficiently grabs only one point for every screen pixel, it can display models of previously unimaginable sizes at interactive frame-rates.

Using Geoverse™, data from any of the standard industry formats is converted by Euclidean's Unlimited Detail technology, reducing the file to 5-20% of the original size. This data can be installed on a local computer for single use or anywhere on the network for multiple users to access. Load times for data sets of any size or location are less than a second.

## UNLIMITED OPPORTUNITIES

- Render all of your point cloud data, all at once — no size limit.
- Reduce the file size to 5-20% of the original with native data conversion.
- Store data centrally and stream over the network.
- Reduce load times to less than a second regardless of data size.
- Run it on entry level desktop computers and laptops.
- Accommodate stereoscopic display.



NORTH ADELAIDE, SOUTH AUSTRALIA



# INFINITE POWER. UNLIMITED POTENTIAL.

Geoverse™ empowers you to fly through your entire geographically accurate, real-time 3D models at lightening fast speeds as if you are actually there.

## ACCURATE MEASUREMENTS & INTERACTIVE PRESENTATIONS

Effortlessly visualise your data, create presentations, take accurate real-time measurements and have discussions from your LiDAR of real-world locations as though you were actually there.

The simple interface enables you to fly around your data in real-time at very high speeds in full resolution — and the size of the model no longer matters with Euclidean's UD technology.

## MEMORY COMPACTION

Geoverse™ compacts data to between 5-20% of its original .LAS file size — saving significant space on your server and resulting in less data that needs to be streamed over the network or from the hard drive where it is stored.

This compression doesn't impact performance or the quality of the data. Euclidean's UD technology actually uses the data in its compressed format. It doesn't affect the image at all — compression only removes points if they occupy the same space.

Instead of loading point cloud data into RAM, Euclidean's Unlimited Detail algorithm streams the data straight from the hard drive which enables files of unlimited size to be opened instantaneously, in ultra high resolution.

## RUNNING ON A NETWORK

Previously, due to the vast size of data sets, LiDAR data had to be installed on every computer that needed to use it. These models are often multiple gigabytes and costly to update and store.

With Geoverse™, you only have to put the data on one computer in the building and all other users can stream it from that one computer.

This centralised storage of data cuts costs considerably, improves security and simplifies administration. It also becomes possible to archive historical sets of LiDAR data taken at different points in time.

RAW  
LiDAR DATA  
[HUGE FILE SIZE]

EUCLIDEON  
CONVERSION

GEOVERSE  
UDS FILE  
5-20% OF  
ORIGINAL  
SIZE

STORE ON ONE  
CENTRAL LOCATION

REMOTE ACCESS  
VIA INTERNET

SIMULTANEOUSLY  
STREAM OVER NETWORK



THE UD PROCESS

<b>UNLIMITED DETAIL</b>	Unprecedented detail with over 1 million point cloud atoms per virtual cubic inch.
<b>INSTANT ACCESS</b>	Load any size model in less than a second, direct from the hard drive using a standard laptop.
<b>CENTRAL STORAGE</b>	Place your data in one place on the network and stream simultaneously to multiple users; no need to copy onto every computer.
<b>SEE ALL YOUR DATA</b>	See all of your data, all at once in ultra high resolution; no need to chop your data into pieces.
<b>5-20% OF THE ORIGINAL DATA SIZE</b>	Compresses the original scan data file size making it much easier to store and manage.
<b>COMMUNICATE IN 3D</b>	View spatial concepts in 3D as if you're standing there; fly through camera controls allow easy viewing and measuring.
<b>ACCURATE MEASURING</b>	Take measurements at the precision of the data set and display data on base maps.
<b>EASY TO USE INTERFACE</b>	User friendly 'drag and drop' interface.
<b>RUN ON A BASIC LAPTOP</b>	No need for special hardware or super-computers.
<b>SIMPLE INTEGRATION</b>	Overlay map data with KMLs direct from Google Earth or elsewhere or overlay data onto base maps, including OpenStreetMap and Bing Street, Aerial & Hybrid Maps.
<b>SMART PRESENTATIONS</b>	Create annotated presentations with bookmarks and labels.
<b>REAL-TIME ACCESS</b>	Visualise all your data in real-time without the need for lengthy offline renders.



CITY COASTLINE

## SMART PARTNERING. SMARTER TECHNOLOGY.

Euclidean specialise in providing agile enterprise solutions that improve productivity and the usability of large volumes of point cloud data.

Partnering with industry leaders, scanning companies and end-users, Euclidean continues to develop technology to enhance our ground-breaking Geoverse™ solution. Our qualified team will work with you to develop integrated tailored solutions to achieve both local and global efficiency objectives.

In 2010, Euclidean received one of the largest government grants to commercialise Unlimited Detail with the first offering being Geoverse™.

Our UD algorithm has featured in most of the world's technology based media (New Scientist, Popular Scientist, Game Informer, and Rolling Stone), and is set to transform the world's experience of 3D data visualization.

Based in Brisbane, Euclidean's team consists of Australia's top programming and graphics experts, and an executive board comprising of:

- Bruce Robert Dell  
*CEO and inventor of UD Technology*
- Chairman David Merson  
*former Head of Mincom\**
- Scott McTaggart  
*former Head of Oil and Gas, Mincom\**

*\*Mincom became Australia's largest software developer. With revenues of \$200M, 1,200 staff and 20 offices around the world, Mincom enjoyed global leadership in asset management in mission critical industrial applications.*

BOOK A FREE  
DEMONSTRATION

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An abstract graphic on the right side of the page, composed of several overlapping, semi-transparent geometric shapes in various shades of teal and blue. The shapes are angular and layered, creating a sense of depth and movement. The colors range from a light, airy teal to a deep, dark blue.