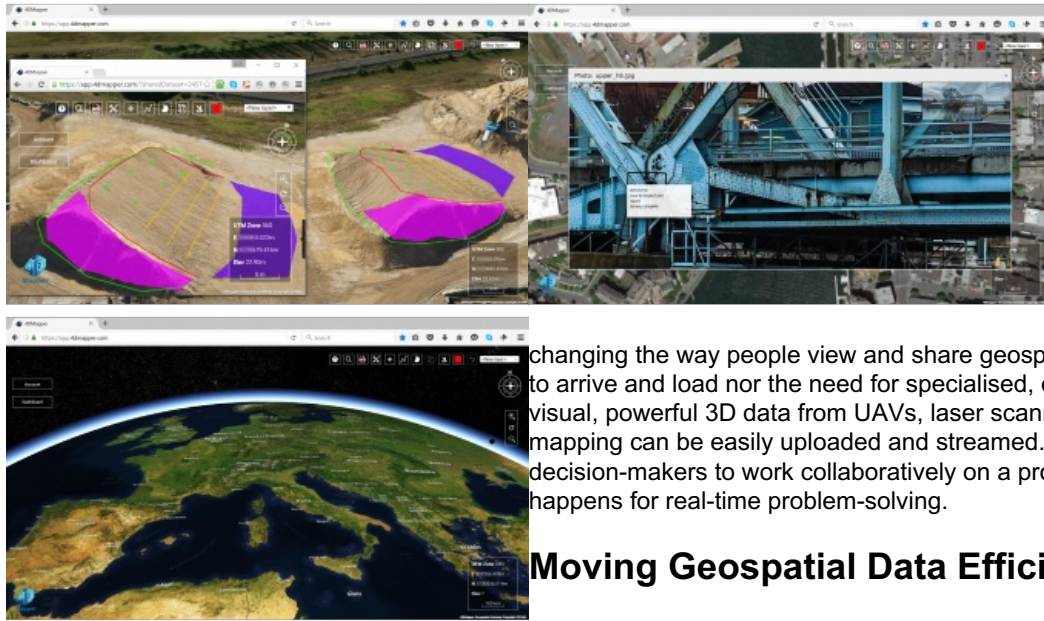


4DMAPPER

Making Big Geospatial Data Accessible on a Massive Scale



Australian technology company 4DMapper designs, develops and markets a web-based platform for streaming and sharing big geospatial data. Massive amounts of geospatial data can be imported to the cloud, then viewed immediately by an expanded audience in 3D via a URL, without any extra software being required.

Based in Sydney, Australia, [4DMapper](#) is changing the way people view and share geospatial data, with no delays waiting for data to arrive and load nor the need for specialised, expensive software and hardware. Rich, visual, powerful 3D data from UAVs, laser scanners, high-resolution satellites and aerial mapping can be easily uploaded and streamed. 4DMapper enables professionals and decision-makers to work collaboratively on a project, seeing each other's work as it happens for real-time problem-solving.

Moving Geospatial Data Efficiently

4DMapper is a private company formed in 2014 by highly experienced geospatial professionals Rob Klau and Adam Chabok. Big geospatial data has traditionally required big data handling, powerful processing hardware and expensive software to manage and access. The duo recognised a void in effective delivery of geospatial data to people who need it. They worked with a team of software engineers to develop a platform for streaming these massive files without the need for expensive software or hardware. 4DMapper has become a game changer in the geospatial data realm with a broad range of users in the areas of agriculture, mining and resources, waste management, environmental monitoring, insurance, government and defence. One application keenly supported by the company is crowdsourcing of drone mapping and inspection data for humanitarian projects such as disaster management and environmental monitoring.

Rapid Growth

The company has grown from being a start-up operated remotely between Sydney, regional NSW and Adelaide to a global enterprise. Sydney's central business district (CBD) has become the central location for technical development, while marketing and operations are now headed up in North America. Staff numbers continue to rise and 4DMapper is in a significant growth phase, actively seeking further private investment. Rob Klau explains the platform's significance: "4DMapper lets the genie out of the bottle, is original and disruptive to a very major industry. Massive, visual, geospatial 'big data' now becomes a fast-moving, accessible, powerful tool on the desks of decision-makers."

Adaptive Platform

The founders originally worked on developing 4DMapper as a platform for geospatial data to be uploaded and streamed, with a focus on speed, cost savings and data leverage for its users. However, early client feedback asked for tools on the platform to measure points, lines, areas and volumes, to mark up and digitise with the ability to export those annotation layers as DXF or CSV files. On building these tools, the team realised 4DMapper's potential as a collaboration platform and collaborative work tool. For example, as one user draws mark-ups on a shared project, all others sharing the data see these changes as they happen. This opens up opportunities not previously imagined, such as multi-operator teams rapidly digitising a site, crowdsourcing of drone data for wide-area insurance inspections and team collaboration on new development projects. 4DMapper is a powerful tool: like Netflix and Google Docs combined for the geospatial data realm.

Simple and Authentic

Users face a serious obstacle with most mapping software products: the complexity is overwhelming, and companies often have limited skilled personnel able to use the software to access the data. 4DMapper is working to make big geospatial data accessible to the widest possible audience with effective levels of functionality balanced with a simple, logical user interface.

4DMapper takes care of the complexities of data ingestion by automating the entire process, from analysing file attributes before upload to tiling and streaming. The platform supports many formats of orthophoto imagery, 3D digital terrain, point clouds and vector data in more than 4,000 coordinate systems worldwide. While 4DMapper makes it faster to view geospatial data through streaming, its users maintain full control of their data, its management and distribution. The platform is a non-prescriptive environment maintaining the integrity of the original data. Users' data in the cloud is secure thanks to both AWS and internal IP security measures.

Customers and Markets

4DMapper is currently working with data providers such as satellite and aerial imagery companies and operators of UAVs and laser scanners, leveraging their products by offering them to a far larger audience. The company is forming partnerships by offering a direct-upload API to integrate 4DMapper into the workflows of desktop software. It is also building relationships with cloud-based processing services, inviting them to this environment and enabling them to add value to products then efficiently deliver them to the client. 4DMapper's philosophy is 'enablement': to enable data to move quickly and seamlessly between providers, software companies, data analysts and end users.

4DMapper is globally accessible and able to bring immediate access and collaboration among users worldwide. With the interest shown to date, the company is preparing for massive global growth with governments, corporations, software partners, small and medium-sized enterprises (SMEs) and individual users. Chairman of 4DMapper, Trevor Bourne, explains the platform's potential: "4DMapper provides an unparalleled opportunity to manage data and increase company efficiency by aiding the spread of information which in turn will improve business performance and profitability. The company is entering an exciting growth phase, which will show the true potential of this technology to customers and investors."

Future

4DMapper has a development plan to continue adding support and functionality to the platform. Recent developments have added support for asset inspection photos and videos, and imagery animation to show changes over time or with different imagery types. The scope of further functionality is boundless. The team is currently building support for 3D vector data including rendered mesh products and 3D city models. As technology continues to evolve, so too will 4DMapper.

Geospatial data acquisition technology is booming. 4DMapper makes big geospatial data accessible on a massive scale and will continue to open up new markets and opportunities for its users. Growth of the geospatial industry is not only about new technology and more data, but also about access to that data, making it more useful and more valuable.