



Surveying the Options

Why, after an extensive market survey, did surveying specialist LandScope choose AutoCAD Civil 3D?

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Martin Berry, Founder, LandScope Engineering Ltd.

Project summary

When Martin Berry founded his own company, LandScope Engineering Ltd, one of the fundamental technical issues he faced was the selection of a suitable software solution to address the challenge of a diverse geospatial service portfolio. Previous management experience in the offshore oil and gas survey industry had demonstrated just how critical this selection could be; the solution needed to support the entire lifecycle of a project while ensuring that the investment was protected into the future.

However, because of the diversity of the services LandScope offers – including land and engineering surveys, buried utility and services mapping, hydrographic surveys and site investigation – choosing a suitable software package for data processing and management was a real challenge. “We needed a solution with real versatility,” says Berry.

After extensive research, he chose AutoCAD Civil 3D. The choice has resulted in the highest order of data integrity and quality control whilst providing transfer of data from acquisition systems through the entire lifecycle of a customer's project. It has also brought excellent interoperability with his customers' own systems to the extent where the software's 3D capability is even enabling LandScope to extend its range of services.

“Besides, Civil 3D is such a multi-faceted system that it provides us with the necessary growing space to fulfil our development aspirations well in to the future,” he says.

Integrated data

Founded in 2004, LandScope is a small company with a capability centred on the provision of integrated survey and data management services to the engineering and environmental sectors. Its services include land and engineering surveying, underground infrastructure mapping, hydrography and geophysical site investigation.

“It's a diverse portfolio, but effectively, you can place everything under the umbrella of geomatics” explains Berry.

He recalls that when the company began operations, he was keen to find a software configuration that could handle all aspects of its work. “From previous experience it was clear that software package selection was to be the principal critical success factor, so I knew the importance of choosing the right solution,” he says.

As a result, he embarked on a thorough market study. “I reviewed the various options in some detail which can be very objective when there are no legacy issues to constrain the decision making process.” He eventually settled on Autodesk Land Desktop and shortly cross-graded to Civil 3D.

Firms such as LandScope often face problems when surveying data can't be readily integrated with all other design and drawing production operations. With Civil 3D, survey data may be translated directly from survey instrumentation giving a consistent environment for all tasks ranging from field-book import to creation of surfaces and layout of parcels/plots and alignments. This can radically reduce field-to-office timescales.



Berry says that Civil 3D was selected for many reasons – but what really clinched the decision was the fact that the software was fast becoming an industry standard. “Primarily we wanted to be able to communicate with our customers, suppliers and other people we work with. We knew Autodesk software would enable smooth data exchange.

“We were also encouraged by the fact that Autodesk is forming strong links with Trimble, our chosen survey equipment manufacturer. This gives us confidence that the two vendors will continue to ensure strong compatibility and pursue greater efficiencies.”

A further important consideration for Berry was the way Civil 3D could expedite the entire work process from project planning and data acquisition through to final deliverable. “Our service levels rely on us turning data around as quickly as possible while ensuring the highest order of data integrity and quality control. The software really helps us to do this.”

Cut and fill

Now, both LandScope itself and Civil 3D are well-established, Berry and his team are seeing even further benefits – for example, in the way it enables them to experience their ideas by way of a 3D dynamic model which allows them to experiment and make changes. “We’re now doing some sophisticated 3D modelling and it’s opening up a new area for us – we can now take our service right up to the civil design stage.

“In particular we can work out excavation cut and fill volumes for customers. Earthworks are often one of the most expensive parts of a project and so to be able to do this accurately is a big advantage.”

Because Civil 3D calculates volumes automatically using the single, intelligent model, it is fast and accurate. This model creates relationships between objects so that design changes update without further intervention. In other words, a change to one part of the design propagates throughout the entire project.

According to Berry, another major time-saver is the fact that, “we don’t have to spend time worrying about being conversant with our customers. In my experience, so much time can be wasted on that.”

LandScope also uses specialist geophysical software which has been tailored so that live data can be readily migrated to the Civil 3D model space. “Reducing manual data entry clearly saves a considerable amount of time and reduces the risk of unnecessary error,” says Berry.

Although LandScope is a small company, Berry is delighted that both Autodesk and Autodesk reseller Cadassist have taken a strong interest in what they are doing with the software.

Cadassist Senior Applications Engineer, Paul Lloyd-Smith who was responsible for training LandScope on Civil 3D says, “We are pleased to be able to provide LandScope with seamless software that has enabled Martin to quickly provide his clients with a first class service and will further enhance the future prospects for his company.”

Berry adds: “Cadassist has worked with us to ensure that we have derived maximum value from the package – and in doing so has shown a real commitment to the surveying market.”

It is evident that LandScope has found a rewarding role for itself and it looks set to continue to expand with the help of the right technology. “We’re very pleased with what we’ve achieved with Civil 3D,” Berry concludes.

For more information

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