

ROLL ON 2018!

As the year draws to a close, **Chris Harris** looks ahead and sees the democratisation of data as something that's within our grasp



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In 2017, we certainly saw a lot of buzz around the concept of the democratisation of data and the need to put quality digital data into the hands of the average 'end user'. This included the idea that 'non-specialists' should be able to gather and analyse the data without needing outside help. In our world of precise geospatial measurement this would seem like a bit of a stretch. However, I do believe that we're well on the way.

Data gathering

Let's start with gathering the data. It's been many years since I purchased my first mobile phone when working as a field surveyor, a Nokia 3210 that was a great workhorse and never missed a beat. If you'd told me back then that a mobile phone would give me access to my emails in the middle of nowhere, I would have believed it because, although an impressive idea, you could see where things were going.

On the other hand, if you'd suggested that, by 2017, your mobile would be a tool capable of delivering the same cm-level performance as a pair of professional grade GNSS receivers costing £30,000 or more, just by adding a £300 plug and palm-sized antenna, I'd have said no way! Yet last year we saw exactly that, with the release of Trimble Catalyst, the world's first subscription based software GNSS receiver.

Technology such as this does, indeed, put professional GNSS measurement in the hands of anyone with a smartphone. Interestingly, Trimble has been very clear to highlight 'simplicity of set up and use' as a driving factor

in developing Catalyst, obviating the need for extended training and technical understanding.

Data analysis

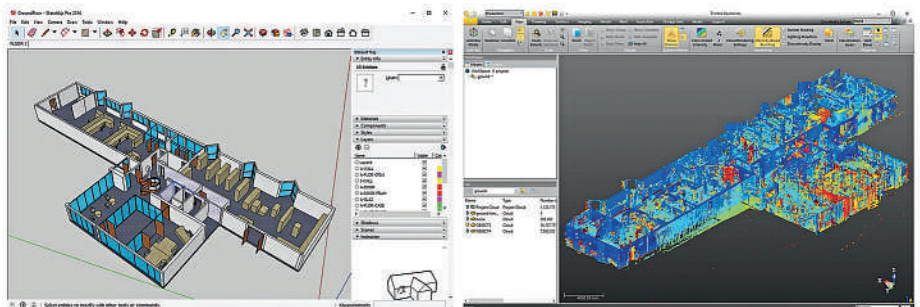
So, what about the analysis of data? Here at KOREC we talk to many surveyors who specialise in a diversity of applications. However, a common theme is that their deliverables are becoming more image based. While clients may continue to request a 2D drawing, many survey practices also provide a 3D deliverable thanks mainly to the growth in laser scanning and innovations such as Trimble's SX10 scanning total station. This enables them to add value to their offering and provide the client with a more visual interpretation of their data something that is more easily understood by a wider variety of stakeholders. In fact, one of our customers has been creating some great 3D models in SketchUp that have been particularly well received.

Finally, while on the subject of visualisation,

Creating and navigating complex 3D models becomes a more intuitive task thanks to developments such as Microsoft's HoloLens

let's take a step further along the line by touching on how Augmented Reality is achieving some amazing results. For example, to properly visualise something in 3D, a designer of architect would traditionally have built a physical model. 3D printers have helped this process in recent years, but they're still costly. AR or VR will now allow you to view properly-scaled models and examine them in detail from inside or out. But more impressive than that, you can edit those models in real-time. If the roof isn't quite lining up correctly, if the window doesn't allow enough light into an area – these things can be tweaked live without the need to build another model. Again, this technology is so easy to come by, with apps such as Trimble Sketchup that you can download for your Microsoft HoloLens.

Roll on 2018! I can't wait to see how these trends progress in the next 12 months.



Trimble's SketchUp 3D modelling software (left), and laser scans derived from all-in-one instruments such as Trimble's SX10 (right).