

I did say earlier this year to the team, that 2015 is the year of change.

Here are a few, just to get started.

We are needing to change offices later this year, as the new South Road upgrades at Darlington will swallow up our current office. So we are looking for new office options close by. Stay tuned!

We also have some new equipment at our disposal, to add to our array of Surveying Technology. The Terrestrial Laser Scanner is a great addition which we share about in this edition.

While we have recently said goodbye to Ashley, we welcome Mark and also Martin to our team, who will be our resident Terrestrial Laser Scanning Specialist.

Back onto current work. We have been spending a lot of time up north, pegging some 200 kilometres of pastoral property boundaries just out of Whyalla. Photos of some of the sights and experiences (stuck in a creek bed) have been included to give you a taste of this job. *See over.*

Thanks for feedback and responses to our newsletters and competitions. We trust you continue to enjoy them.

Michael - Ed



Mark @ the Mannum Dry Dock



Laser Scanner



Laser Scanner in Action!



The 'Dry Dock' - Mannum

## Laser Scanning When Too Much Information Is Never Enough.

We are very excited to announce the acquisition of our Leica C10 Terrestrial Laser Scanner (see our "in action" photos).

These Scanners generate point clouds of millions of three dimensional points representing whatever scene /object we are surveying. This can include complex building facades, factory /industrial refits, road intersections, refits of large and small ships, Electrical Substations, volume determination and even Historical Dry docks, like the one in Mannum we recently surveyed (see scan image results)

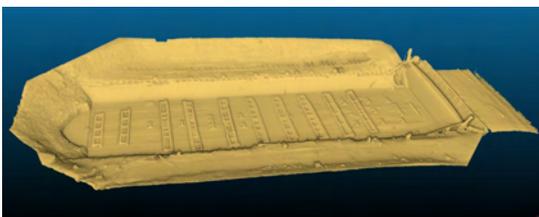
The common theme with all these examples is that providing "rich" survey information that accurately reflects the shapes and sizes of what's currently there, allows great confidence when designing new items to fit.

The point clouds allow us to create surfaces of features, or we can generate cross sections through the models at any location. This then provides great information for engineers/ architects/ surveyors/ archaeologists/ builders/ scientists to analyse, design and interrogate in ways not possible before. Items can be designed and built off site, brought in and confidently fitted on site, even with the most complex of shapes.

Terrestrial Laser Scanners are the latest tool in the surveyor's tool box. These scanners come in many shapes and

capabilities, from hand held short range (5-10m) models for scanning on the run and in confined spaces, to the more survey appropriate models that can collect anywhere from 50,000- 1000000 points per second with a range of 120 -300 m and accuracy of 2-5mm.

We would be happy to discuss the possible application of this technology for your projects. It is not always the most appropriate tool to use in each application, but we pride ourselves on being able to offer a full range of options to find the most appropriate solutions for your venture.



Rendered Scan Image



Photo Realistic Scan

# What Else Should I Consider?

Part 2 (See Summer Ed of The Survey Datum for Part 1)

When completing a **Land Division**, it can feel as though there is a continual stream of 'other people' that need to be involved. Land Divisions can be complex but we aim, with the assistance of our Land Division Co-ordinator, to guide you through the maze.

Input may also be required from:

**Arborist** – Council may request an Arborist report to determine the significance of trees and their health.

**Building Designer** – Building plans or at least an indicative plan may be requested by council as part of the land division assessment.

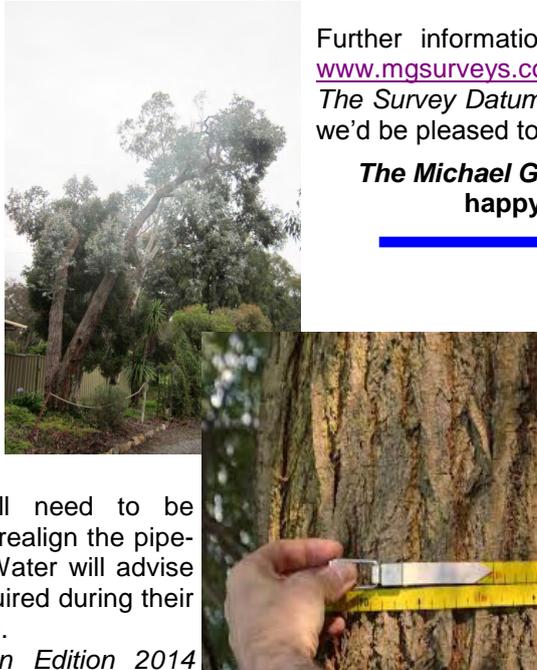
**Valuer** – For Community Divisions, a valuer is required for lot entitlements.

**Plumber** – If the existing house is retained and the internal drains cross the new boundary a

plumber will need to be engaged to realign the pipe-work. SA Water will advise if this is required during their investigation.

See *Autumn Edition 2014* for further information

**Engineer** – May be required for driveway retaining wall design and stormwater management plans at council request.



**Demolition Company** – If a current house is to be removed as part of land division conditions.

Michael Gear Surveys will support and relay information to these 'third parties'. Our aim is to ensure your Land Division moves through the process, gaining a positive result.



**The full process of a normal Land Division can take 6-8 months.**

Further information can be found on our website [www.mgsurveys.com.au](http://www.mgsurveys.com.au) and in previous editions of *The Survey Datum*, (also be found on our website) or we'd be pleased to post out hard copies to you.

**The Michael Gear Surveys Team are always happy to field your queries.**

Sudoku Answers from Summer Ed

2	7	3	9	1	6	5	4	8
4	6	9	8	7	5	2	3	1
8	5	1	3	2	4	6	7	9
5	8	2	4	3	1	7	9	6
9	1	7	6	5	2	3	8	4
6	3	4	7	9	8	1	5	2
3	2	5	1	4	9	8	6	7
7	4	8	2	6	3	9	1	5
1	9	6	5	8	7	4	2	3

*Quiz Time ... For the Mathematically Minded!*

**Using eight eights and addition only, can you make 1000?**

Send your answers to [admin@mgsurveys.com.au](mailto:admin@mgsurveys.com.au).

## Pictures of our latest trip to northern SA



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**Thought of the day ...** True friends are those who, when you make a fool of yourself, don't believe that this condition is permanent. -Erwin T. Randall