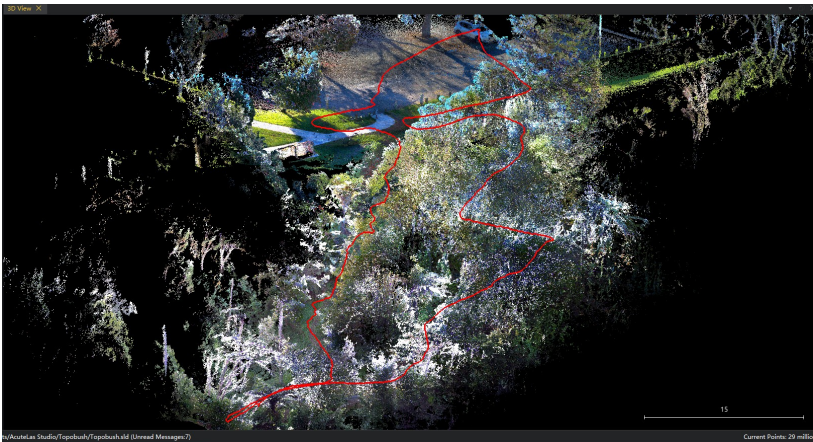




SOUTH ME plus CASE STUDY Topo Bush

Introduction

A topographical survey was completed on a site with extensive tree cover using the new SOUTH ME plus. Traditional forms of survey using GNSS or Total Station are often not viable on such sites as they are cost prohibitive and time consuming.



Above red line is the trajectory walked

Site details

The site was located at Waipuna park in Tauranga had a steep winding track with steps and **extensive tree cover** with details:

Site area = +2000 m²

Elevation change = +14 meters

Number steps = 50

Field survey procedure ME plus

The ME plus has a built in **4G network** SIM card port so the survey grade RTK GNSS can receive RTK corrections from CORS GNSS base stations such as the free LINZ real time RTK service. The coordinate system used was Bay of Plenty 2000 coordinates and geoid 2016 heights and we used the Papamoa Hills LINZ station real time RTK service which is free.

The SOUTH **SurvStar** android field software was used to setup the coordinate system and connect to the LINZ Papamoa station over the 4G network. The lidar unit was then started using the SurvStar software and then a slow walk around the site to measure all areas of interest. The built in GNSS receiver positions the trajectory of

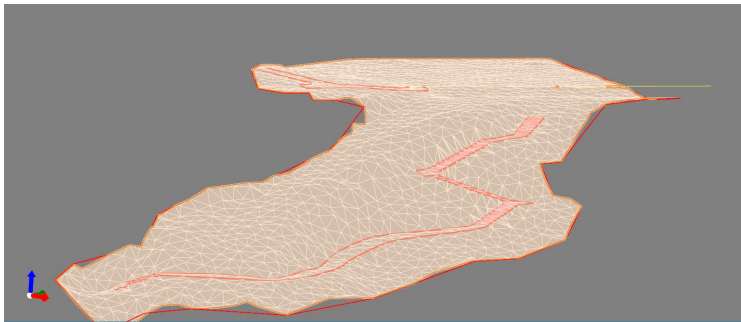


scanner every second in open areas and under trees when sky/satellite view is poor positioning automatically switches to using SLAM. The entire work area was **completed in one scan taking 5 minutes.**

Office processing

The field data from ME plus is transferred to the office PC via TF memory card which only takes a few minutes.

The field data is imported into the SOUTH ACUTELAS software which is a PC based software that has a **perpetual license** via USB dongle licensing. This ensures **data security** and no additional costs for processing and data ownership. Once the data is imported the **processing is automated** with the output of a coloured georeferenced LAS point cloud on the Bay of Plenty 2000 coordinate system.



Deliverables

The following deliverables were generated in less than 2 hours:

1. **Site plan** in 3D DWG format
2. **DTM** surface in landXML format
3. **3D point cloud** colourised and georeferenced on Bay of Plenty 2000 and shared via a web portal for all project stakeholders to do virtual visits of the site and take measurements

Watch video <https://youtu.be/gWdvEW5vN4A>

Summary

	ME plus
Field scan time on site	5x minutes
Office time generate deliverables	2x hours

Work smarter. Capture more. Deliver faster.