

Property Mapping Factsheet

Introduction

There are many mapping software programs and mobile apps available out there. This document provides a background on four of the most widely used programs for property mapping including; their pro's and con's, how to download them and links to tutorials on how to operate them.



Google Earth Pro (desktop)

The most widely used program for on-farm mapping. This program is capable of drawing points, lines and polygons and measuring lengths and areas. Points, lines and polygons can also be imported and exported. GPS coordinates can be easily viewed and coordinate systems (e.g. Degrees Minutes Seconds, UTM, and Decimal Degrees) can be easily changed. Satellite images dating back to the early 2000's can also be viewed.

Download <https://www.google.com/earth/versions/>



Google Earth (mobile)

A basic version of Google Earth for your phone. This application is limited to measuring lengths and viewing satellite imagery.

Download



Google My Maps

A basic mapping application for creating custom maps. Similar to Google Earth, it can draw points, lines and polygons and measure lengths and areas, and also import and export point, line and polygon layers. Maps can be saved and returned to later to edit and can also be shared.

Download <https://www.google.com.au/maps/d/>



Google Maps

Commonly mistaken for or mis-called Google Earth, Google Maps is a program mostly used for searching locations and providing directions to an address. It has limited use for property mapping as it cannot draw points, lines and polygons or measure lengths and areas.

Download <https://www.google.com.au/maps>







QGIS

A professional, free and open source GIS application that can visualise, manage, edit, and analyse data and create printable maps. Being a professional application, it requires an intermediate knowledge of GIS and map production, and is mostly used by government agencies and consultants.

Download <https://qgis.org/en/site/forusers/download.html>

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Pro's and Con's

	Pro's	Con's
<p>Google Earth Pro</p> 	<ul style="list-style-type: none"> • Can view historical satellite imagery dating back 20+ years • Can draw points, lines and polygons • Can measure distances and areas • Can import and export points, lines and polygon files 	<ul style="list-style-type: none"> • Lacks detailed road map and address search • Cannot turn-on different base maps (satellite, roadmap, terrain)
<p>Google My Maps</p> 	<ul style="list-style-type: none"> • Can create, save and share custom maps • Can draw points, lines and polygons • Can measure distances and areas • Can import and export points, lines and polygon files • Detailed road map and address search • Can turn-on different base maps (satellite, roadmap, terrain) 	<ul style="list-style-type: none"> • Lacks GPS coordinate location data
<p>Google Maps</p> 	<ul style="list-style-type: none"> • Searching locations • Providing directions and estimating distance and travel time between two locations via road. • Can flick between road map and satellite imagery 	<ul style="list-style-type: none"> • Cannot draw points, lines and polygons • Cannot measure distances and areas (on farm). • Lacks GPS coordinate location data
<p>QGIS</p> 	<ul style="list-style-type: none"> • Free software that can perform advanced GIS and mapping capabilities 	<ul style="list-style-type: none"> • Laptop/desktop required (for easier use) • Knowledge of GIS and mapping required to operate

Tutorials

Google My Maps

Download <https://support.google.com/mymaps#topic=>

Google Maps

Download <https://support.google.com/maps/answer/144349?hl=en>

QGIS

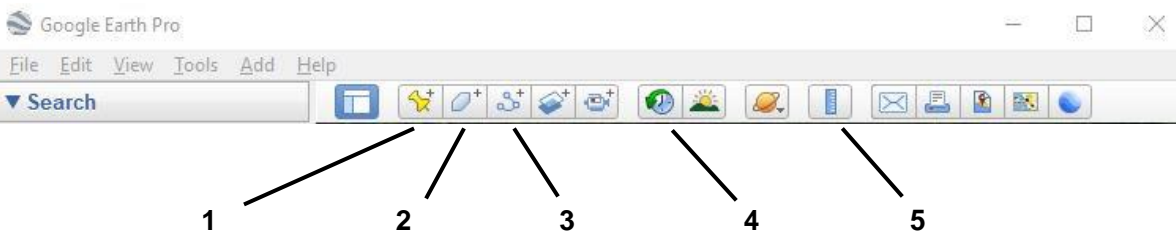
Download https://docs.qgis.org/3.16/en/docs/training_manual/index.html

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Google Earth Pro (desktop)

Download <https://support.google.com/earth/?hl=en#topic=>

Useful tools for property mapping



1. **Add Placemark** – Click to add points (e.g. trough, gate, house, soil test site)
2. **Add Polygon** – Click to add polygons/areas (e.g. paddocks)
3. **Add Path** – Click to add paths/line (e.g. fencelines)
4. **Show historical imagery** – Click to flick back through different satellite images in time
5. **Ruler** – Click to measure distances of straight lines (e.g. fences) and paths (e.g. tracks), and areas of polygons (e.g. paddocks)

GPS coordinate systems

When collecting and storing GPS coordinates it is important to know the position format you are using and to record in the correct format.

Position Format	Coordinates
Decimal Degrees	-35.72115° 147.31600°
Degrees, Minutes, Seconds	35°43'16"S 147°18'57"E
Degrees, Decimal Minutes	35° 43.269'S 147° 18.960'E
Universal Transverse Mercator (UTM)	528580E 6046934S

- There are many free online conversion tools for converting coordinates between different position formats.
- To change the position format in Google Earth Pro go to 'Tools' (up the top) > 'Options...' and select the preferred format under 'Show Lat/Long'.
- An easy way to view the coordinates of a location is to hold the mouse over the location and look at the coordinates along the bottom of the screen in Google Earth Pro.
- To view the coordinates of a point in Google Earth Pro, right click on the 'Placemark' > click 'Properties' and the Lat and Long will appear.

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Mapping Packages

HLN offers a farm/paddock mapping service for current members only (a donation is encouraged). Property maps will only be supplied to persons authorised by the current land manager/owner. Larger sized maps (A2, A1, A0) can be requested but these cannot be printed at the HLN office.

1. Reprint of existing paddock maps **\$10 donation**

- A3 paddock map laminated
- Multiple A4 paddock maps printed with or without the imagery
- PDF emailed

2. New or update existing property map **\$50 per hour donation**

- Create new or update existing property and paddock map
- Up to 2 A3 paddock map, laminated
- Up to 5 A4 paddock maps printed with or without the imagery, laminated if required
- PDF emailed
- KML files of paddock and property boundaries emailed

