

SPIFFA Google Maps primer

This is a free, easy form of basic GIS mapping without having to tool around with the horrendously expensive and implacably impenetrable MapInfo, ArcView, et al.

It's particularly suited to communicating areas or locations on a map/aerial that can be distributed by email. To access it you just get a Google page up and click the maps link at the top left of the page.

To demonstrate Google Maps, I'm including a link that I sent out to alert the foreshore manager, weed contractor and others about the presence of a certain plant that could be mistaken for some objectionable weed. The whole operation, from making the map to sending it out, took 5 minutes. No mucking about. If you [click on this link](#), you can see the plant's location at Blairgowrie.

Click on the green placemark thing to get a balloon/box for info, photo, exact location etc. GPS co-ordinates can be written in these boxes. The track is marked using the line tool and the shaded area using the polygon tool. Lines and polygons have their own balloons if you click on them.

We at the SPIFFA secretariat now routinely use a Google map for professional purposes to report to clients or to clearly and quickly report on habitat destruction or poor practice land management.

There is a video tutorial for Google Maps on the web. Just [click on this](#) to watch.

They're using the map tab for the demo and that looks like a street directory, but you can do all that on the satellite or terrain (contour) view too. Google maps aerials don't have the highest resolution in some parts of the country, but it gets down far enough for most mapping purposes i.e. you can see individual trees etc.

You need a Gmail account (i.e. a Gmail.com email address) and be signed in on that account to be able to use My Maps. You can [get one here](#)

An interesting feature is the collaborate button where you can enter email addresses and those people can access the map and add placemarks, lines, polygons and text etc. to the map, so other people can contribute to and edit maps.

The person viewing the map that you send as an email link will see the same zoom level that's on the screen when you save the link for pasting into an email, but they can zoom in or out as required when viewing the map.

You can display multiple map layers at once simply by ticking the boxes, however the 'Link to this Map' will only include one map, so you can't send a group of maps or layers to someone as one link. Each map has to be sent separately. I would assume that this is a temporary limitation only.

In the little pop-up balloon boxes that placemarks, lines and polygons have when you create or click on them, the top right hand corner of the little box has the button you click to format the tag, line or polygon for colour, symbols, line thicknesses, transparency etc,

The rich text link in the little box enables one to format the text font etc. in the box and add pictures or even videos, though these have to be on a website somewhere.

The "add picture" button prompts one for an internet address.

(The picture I've used as an example came from a Google Images search of the species name and was found on the cool community web site from the Bega Valley that has squillions of [plant \(and fungi\) photos](#) by Jackie Miles and Max Campbell. [Picsearch](#) is a good alternative to Google Images and has photos that the latter doesn't and less clutter from irrelevant results. Clicking on Picsearch images takes you to the website they reside on. Microsoft has lunched a new search engine called [Bing](#), which has a good images search

The "Map" view shows land tenure boundaries (and property numbers if it's zoomed in enough). If you want to include boundaries on the aerial, my method is to switch to the "maps" view, then use the line tool to trace the boundary and that line will show when you switch to the aerial view. The line tool also shows how long the line is in metres so you can measure distance and calculate area with it. Just delete the line when you finish using it as a ruler.

Once you are logged in and have pressed the "My Maps" button, if you select the "Browse the directory" link, there are [mapplets](#) that you can add to "Your Maps" such as a distance and area calculator and a show GPS coordinates widget and other toys. There is one called Path Profiler that shows a cross sectional view or profile of a line drawn on a map and a tool for measuring altitude at a given point.

The map can be made public or unlisted, where only those that have the link can see the map. The public setting will mean that it's published on the web and anyone can find the map with google or any other search engine if the keywords they are searching on match the title that you give the map (and maybe the text inside the map, not sure).

You can print a Google map, but it will appear as the street directory type map with the key to all the map content printed below. Press the print button to preview the result. It won't print the map as an aerial. I suspect that will change. You can also use the print preview feature to get a better view of all the titles and text in the map key.

You can transfer the My Maps map to Google Earth using the button above the map, but GE will only print the aerial map with the polygons etc. but with no key underneath. It may involve joining a Maps key printout with an Earth aerial printout, if that's clear...

The "link" tab in the top right of the newly created map can be clicked on and the link copied to the clipboard (right mouse button functions) and pasted into an email.

You can embed a map in a website using the same link tab.

The "import" button is how one uploads GPS waypoints and tracks into the map.

I've uploaded waypoints from a Garmin GPS by exporting (File/Export) the points as an GDB format file (you usually get to choose the exported file format) to the desktop. Then fill out the form [on this site](#) and upload that GDB file from the desktop using the upload fields in this form. This is a free online site that converts GPS data into a form of file (KML) that Google Maps can use.

(A recent free, online update of the Garmin Mapsource software that's installed on the SPIFFA computer added a "View in Google Earth" menu item that opens GE if it's installed on the computer. It pays to regularly check the web for software updates...)

The [conversion site page](#) also has links to Google Earth and Google Maps forms, but if you want to be able to edit the maps you should use the "Convert a GPS file to plain text or GPX" form. This form can convert three separate GPS output (or other) files at once into a single Google compatible (KML) file.

So, the site produces a KML file in another window or tab, in the form of a link and, either you can double-click on that file/link name, which will open Google Earth with the waypoints in it as a layer (assuming you've downloaded and installed GE on your computer) or you can copy and paste the converted KML file link location into the Google Maps import dialogue box and the program will load the file and show the waypoints (with dates in the little boxes) and/or the tracks in your map.

It's very satisfying seeing all one's waypoints pop up in the right places on an aerial. If you want a full-featured dialogue box for that point, you have to substitute or insert a placemark on top of it and then you can edit a placemark dialogue box as above.

The GPS Visualiser site seems to be able to convert the most common types of GPS output formats and the webmaster reckons he'll help via email if you have problems.

The main thing is that if you get the maps page up and muck about with it, you'll pretty soon get the hang of the basics of inserting placemarks, lines and polygons.