

Mapping and Classifying New Roads in Insular Southeast

Asia using Google Earth

Orientation Booklet Summary

Important: this summary is not a substitute for the actual Orientation Manual. **Please read it.**

- You are tasked with identifying and mapping 'new roads', i.e., roads not already mapped on the official-road maps that we provide. We cannot use the Google Roads data in our analyses, so **please turn all layers off when mapping.**

Getting Started

- In Google Earth, open the map of grid cells for your region (e.g., Grid_SEA_1234.kmz) and all versions (i.e., scales) of the existing road map files for a particular location in your region (Eg. 25k 611.kmz, 50k 611.kmz, osm_3426.kmz). Only those working in Sumatra would have official road maps at multiple scales.
 - Any existing road files that do not contain any roads within your assigned grid cells can be disregarded.
 - If your computer slows, only display those road maps that are coincident with given grid cell that in which you are mapping new roads.
- During your first mapping session in a new package, create a new folder to store the roads you are mapping in that package.
 - Highlight the Temporary Places directory in the left-hand panel
 - In the toolbar at the top of the screen (or by right-clicking) select Add > Folder
 - **Personalise the folder name as “YourSurname_NewRoads_PackageName”**
- Ensure that this new directory “YourSurname_NewRoads_PackageName” is highlighted when you start tracing new roads. This ensures that the “way” (i.e., new road) will be saved in that directory.
- When you have finished mapping (or need to Save regularly to avoid losing work) right click on the directory “YourSurname_NewRoads_PackageName” in the left-hand panel, select ‘Save Places As’, and save it as a new stand-alone Google Earth map file, “YourSurname_NewRoads_PackageName_Date.kmz”.
 - In all subsequent sessions, continue adding new roads to “YourSurname_NewRoads_PackageName_Date.kmz”, resaving the file continually as you go.

Mapping New Roads

- To trace a new road, select the “add path” icon from the toolbar above the imagery. In the “Properties” dialogue box that opens, name the new road according to its attributes as illustrated in **bold** below, where “1” means a paved road, “2” means unpaved road, and

“mm_dd_yyyy” is the satellite imagery date (month, day, year) reported by Google Earth, always recorded by you with *two* digits for month and day, e.g., ‘01’, ‘11’:

- “YourSurname_NewRoad_1_mm_dd_yyyy” (a paved road)
- “YourSurname_NewRoad_2_mm_dd_yyyy” (an unpaved road)
- Before you click “ok” on the “Properties” dialogue box for your new road, you need to trace the road with your mouse. Hover over the Google Earth image and you will see a ‘cross hair’ symbol. Click your mouse along the entire length of the road to trace it. You can use the arrow keys on your keyboard to pan your view, and still ‘zoom’ in/out with your mouse.
 - Double click at the end of the road to define its terminal node, and then click “ok”.
 - If you make a mistake, you can right click on the new road in the left-hand menu then select “delete”.
 - During the road tracing process, you can “undo” nodes by clicking the right button on your mouse.

Grid-Cell Map

- Once you have completed mapping all new roads in a given grid cell, right click on that individual grid cell in the left-hand menu (expand “Grid_SEA_1234.kmz”), then select “Properties” in the pop-up menu to open a dialogue box:
 - In the “Description” tab: Write “done”.
 - In the “Style / Colour” tab: specify ‘Filled and Outlined’.
 - This shows us that the cell has been completed

Saving Files

- At the end of *each* session in Google Earth, before closing Google Earth save a *new version* of your new-road map file and your grid-cell map, including the date in the file name, e.g., “YourSurname_NewRoads_PackageName_Date.kmz”, “Grid_SEA_1234_Date.kmz” (right click > Save Places As).
- When you commence a new mapping session, you will open the most recent saved file and continue adding new roads.
- On a weekly or fortnightly basis, please send your most recent grid and road files to tess.volunteers@jcu.edu.au so that we can monitor progress.

Other important notes

- Remember main protocols for of mapping new roads: observe the Earth at altitude < 5 km and do not map roads in settlements (Section 5.1.2 of Orientation Manual)
- Please check the Frequently Asked Questions section of the Orientation Manual (Section 5.4).
- Please ensure to turn of the Google Roads layer in Google Earth. Unfortunately we can’t use the Google Roads data so we do need to map all of those roads (unless they appear in the official road file that we provide).

If you have any queries, please don’t hesitate to get in touch with our team 😊