

Using the Digital Sketchmapper: Summer 2007

Equipment Setup (Skip to step 3 if the plane is already computer-ready)

1. Connect everything, except the power adapters for indoor plugs. Yellow dots connect to the laptop, green dots to the touchscreen. No dots, you're on your own. Make sure the touchscreen cables are firmly connected.
2. Attach the GPS antenna(s) to the plane's window. Don't turn on the GPS yet.
3. Connect the breadboard to the plane's power supply. In the AOT plane, use the cable directly from the outlet labeled 12V, bypassing the convertor.

Starting the Program: Laptop (after the plane is powered up)

1. Turn on the computer (button in upper left corner)
2. Press ctrl-alt-del
3. The username is "mapper". The password is currently "mapper". (If a change is needed, the new password will be on the label in the lower left corner.) Log on to "SPRD53CNR01 (this computer)".
4. Check to see that the touchscreen is working (it may take a little while for it to warm up from the blue screen of death). If it doesn't, you may have some luck with the LCD feature on one of the function keys.
5. Turn on the GPS.
6. Calibrate the touchscreen.
If you got a box asking you if you want to calibrate, press the button to calibrate now. If you didn't, press the Touchware icon on the desktop, and select Calibrate.
Press pen only. Hold the pen on the icon in the corner of the touchscreen with the finger pointing to it. Keep on holding it until it says Touch Enabled. Then do the opposite corner.
Once you've checked the calibration as indicated, press done, and close the dialog box.
7. Click the Geolink ("Baker") icon in the upper right corner.

Starting the Program: Hammerhead

1. Press the yellow button on the right side of the computer (just once, it will go light, then dark for awhile, then boot up).
2. It should display a box saying the AC Power Monitor has been activated. Press OK. If you are operating on battery power, it will then tell you the power was disconnected, and ask if you want to continue monitorin power. Press Yes if you want to be nagged by the computer, No if you can remember to look at the battery situation yourself by checking the icon on the lower right.
3. Start the GPS by pressing the icon that looks like planet earth in the lower right. Click "Turn On"
4. Double tap the Geolink ("Baker") icon which you may find in the upper left corner.

Prepare to Start Mapping (either computer)

1. Click OK for “the project Vermont_as” has been opened” (If this is not open, go find Vermont_as.prj in c:/sketchmap/vt).
2. If there is an annoying advertisement in your face, click somewhere else on the screen.
3. Press the Start Logging button
4. Record when you started logging
5. Press the SHORT button at the left, 2nd bar from the top. This will display the default keypad. (Make sure “KeyPad Window” is also depressed.).
6. Click the green arrow on the toolbar.
7. Click OK to Log with GPS in the Logging Options dialog box.
8. Wait for the computer to initialize the GPS.
9. Click the down arrow to the right of the empty box in the lower right. Click Area on the menu.

Mapping Damage

If you see something map it. If you see two things, map the most important thing first.

Draw the polygon. The map will freeze as soon as you start drawing. (If the map has frozen, and you can't figure out why, it's often because you hit the touchscreen by accident. Just hit enter and see if the plane icon appears again).

If you see the damage type on the SHORT keypad, click the button and press ENTER

Or, open another keypad, and fill in three attributes.

First: Cause OR Symptom OR Cause_Symptom

Second: Species OR placeholder (“,”)

Third: Severity.

Use M or H for foliage symptoms.

Use Numbers for dieback, mortality, and breakage to indicate the % of trees affected.

Each district has a user defined button under ALL with the district number to use for whatever

Use the scroll bar to locate buttons on the list which are not on the screen. You can expand the width of the keypad window if you're lucky.

If you map a bunch of polygons that are the same, you can draw them all before giving them an attribute.

You can also use the COPY button if the polygon is the same as the last one.

If you drew the wrong polygon, you can edit it, or attribute it as “del” and press ENTER.

Exception to three attributes: the “chk,” attribute must be a fourth button.

The polygons are saved each time you press enter, so you can stop logging and start again, or close everything and start again, if you have to.

Bring scrolls.

Shutting Down

1. Click the STOP icon on the toolbar. Click OK at the Stop Logging dialog box. Click X at the upper right to close Geolink for Windows. Click Yes to save the project before exiting Geolink.
2. Shutdown the computer by pressing the START button, selecting Shut Down from the menu, and selecting Shut Down, and clicking OK in the Shut Down Windows dialog box.
3. Record what you flew in the flight log.

Backing Up

1. If you are shutting down for the day, back up your data. Press Windows Explorer or My Computer on the desktop. Then select C:\sketchmap\vt\Log\today's date.
2. If you're using the hammerhead, you'll need a flash drive. Copy today's folder onto the flashdrive. Then press the safely remove hardware icon on the lower left, press Stop, select the device, press OK then Close. With the laptop, you could also use a diskette or CD.
3. Let me know how to help you make the maps available for ground checking.

Advanced: To get Polygons Translated... and Onto the Geolink Maps

1. In Geolink, press Translate Log Files. Press Select Files. Select the files under today's date that have mapped polygons in them, and press Open. Press Translate Selected Files.
2. From the Translate Statistics File, record Output Path, Datum, and , for each Input file, the Input file name and the number of Sketch polygon features processed. Press Close. When you're done, press Exit.
3. If you want to play with the polygons at home, back them up on the medium of your choice.
4. If you want the polygons to show up when you sketchmap, *first, you have to promise that you won't mess up the .prj file for everybody else.* Then, press the Planet Earth icon on the Geolink toolbar. Press the Add Map button. Go to the Translate folder, and select the area.shp file in the folder you just created (see Output Path, above). Check that the coordinate system is correct in the lower right. Make a reasonable display by pressing the Display Setting button, and choosing a Fill Style and Change Outline Color. If you choose to Display Text, you'll get all the garbage in the attribute table.

