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3.1 Data Entry into Spreadsheets

Field Equipment:

Voice recorder/Handwritten data sheets
Microsoft Excel or other data processing program

Procedure:

1. **If using a voice recorder:**
    a. First make sure data is saved on the computer
        i. Hook up the Voice Recorder to the computer with a USB cable
        ii. If using a Windows computer, the connection will appear in "My computer" similar to (F:)VN-6200PC depending on the model
        iii. Double click in the Voice Recorder icon and transfer the desired file to the computer *without deleting the files*
        iv. Give the file the appropriate name on your computer
        v. Eject the Voice Recorder
    b. On the Recorder, navigate to the folder that data was entered by pressing the "Folder/Index" key on the bottom right corner
2. Open Excel and create a spreadsheet with the following *column headings*:
    a. Route Number
    b. Flight Order
    c. Date
    d. Elevation (m)
    e. UTM E
    f. UTM N
    g. Time of Observation
    h. Species
    i. Bearing
    j. Distance
    k. Angle
    l. Calculated Height
    m. DeltaX
    n. DeltaY
    o. Any other information on the bird or weather that is desired
3. Enter the data in accordingly
    a. The **date** is entered as dd/mm/yyyy (Fig.1)
    b. The **site** is the exact place where your observations were taken
    c. **Elevation above sea level** refers to the observation position and is obtained with the GPS unit on site
    d. **Elevation (m)** is how many meters you are above the ground (used if the observation location is elevated above ground like a rooftop)
    e. **UTM coordinates** also refer to the site you are at

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   i. If the GPS gave you Latitude and Longitude you can transform the data into UTM Zone 10, keeping in mind that in North America Longitude is negative, at: www.rcn.montana.edu/resources/tools/coordinates

f. **Route number** refers to the Xth bird that you have recorded
   i. Eg. The first bird you ever saw while recording would be route #1, the 556th bird you saw would be route #556 (it is additive and does not go by birds that day, but by birds ever recorded so there are no repeats of route numbers in the entire dataset

g. **Flight order** refers to the point in the bird's path that you took your observations. Eg: The first set of observations for a bird (time, clinometer, horizontal distance, compass bearing) would be flight order 1. Flight order is also additive, so the next set of observations on the same bird would be #2 (Fig.1)

h. In **Routenumflightord** route number and flight order are combined in the format: Route number- Flight Order (3-5) with the following function:
   i. =CONCATENATE([Cell containing Route Number], [Cell containing Flight Order])
   ii. Combining these fields makes locating specific points of specific birds easier in GIS as no two codes are the same (Fig.1)

Route Number	Flight Order	routenumflightord	Date
208	1	208-1	6/4/2010
209	1	209-1	6/4/2010
209	2	209-2	6/4/2010
209	3	209-3	6/4/2010
209	4	209-4	6/4/2010
210	1	210-1	6/4/2010
210	2	210-2	6/4/2010
210	3	210-3	6/4/2010

Figure 1. Concatenating Route Number and Flight Order

i. The weather conditions are available at http:\\www.wunderground.com
   i. Find Prince George and select the desired date under "History and Almanac" about halfway down the page