Michele's Steps for opening DAT files from the Campbell Dataloggers (CR800 and CR1000)

1. Save DAT file to hard-drive
2. Open Excel, File > Open, find relevant DAT file and open
3. Import Wizard will automatically pop-up, "Delimited with" is checked, click NEXT, check "comma" as a column divider, click NEXT and FINISH (clicking SPACE doesn't do anything additional).
4. Delete the first four rows of "header data"
5. Select all data, center and widen the rows a bit.
6. Go to the Date/Time Column (first column)
   a. Go to the data tab
   b. Click the text to column button
   c. Click fixed width*, click next, click next, finish, OK

      *Before finishing the import process, Scroll down the dialog box to make sure that your whole date is included in your new date column – occasionally, part of the date gets cut off b/c of numbers of digits in the date change. Pull the dividing line over to accommodate the full date.

   d. Highlight the date column, format cells, number, choose the first date format
   e. ==ALTERNATE VERSION==: Save cleaned up version as formatted text file (PRN) (remember to save as Excel also). Open PRN file with Excel as delimited, then click space as a delimiter to separate date and time.
7. Now you can add in your column headers and the formulas to convert calendar date to ordinal date and standard time to decimal time. You can use an old spread sheet with the information in it already and copy/paste. But FYI, columns are as follows:
   a. Date / Time / Sample Number / Batt Volt / Panel Temp / Diff Volts 1 - ? / Air Temp / Rh
      i. Note: Air Temp and Rh are the last two columns
   b. Insert four columns in between Time and Sample Number
      i. Column Labels: Decimal Time / Ordinal Date 1 / Ordinal Date 2 / Date / Time
         1. Note: Once you insert your four new columns, you can go to a previously worked-up worksheet and copy-paste the column headers from there. Your descriptor columns should be the same for all data files, this allows for an easier conversion.
      ii. Formulas (can also be copied from old, already-worked-up sheets) (==Format cells--> Number, if things aren't looking right==)
         1. Decimal Time converted from Standard Time: =((B2-INT(B2))*24)/24
         2. Ordinal Date (1): =RIGHT(YEAR(A2),2)&TEXT(A2-DATE(YEAR(A2),1,0),"000")
         3. Ordinal Date (2): =D2-12000
            a. Note: "12000" is referring to the year 2012. This will change to 13000 in 2013.
         4. Date / Time: =E2+C2

      iii. Eventually, we will need to convert the ==Rh column to VPD==, but we still need to get the sensors reading properly for that. And that will be difficult to explain in a word document and much easier to just copy and paste formulas from already worked-up excel sheets.

8. Once you have all this, you need to create a file that you can use in baseliner. But you don't want all the columns you just created – you want the bare essentials.

   a. Copy-paste the following columns to a new worksheet: Date/ Date-Time / Batt Volt / Diff Volts 1 - ? / VPD. I usually call this new worksheet: SitePosDate_BLReady (e.g.: KineoHighSept2010_BLReady - this will be important later when you save the file as a CSV file, which is what the baseliner program needs).

   b. Save your File as a MS Excel spreadsheet file (note that because you opened the .prn file and have been working in Excel, it is still considered a .prn file until you SAVE AS an Excel file). This step will save both your conversion worksheet and your reduced worksheet for baseliner.

   c. Go to your worksheet with the reduced number of columns for baseliner (BLReady)

      i. Save As a CSV (Comma Delimited) File. Note that it will only save the worksheet you are on, which is OK, because that's what you need for baseliner. Save it with the same name as you gave the reduced spreadsheet above.