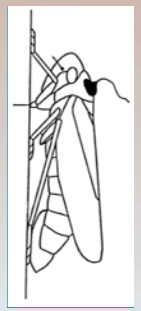
Congratulations

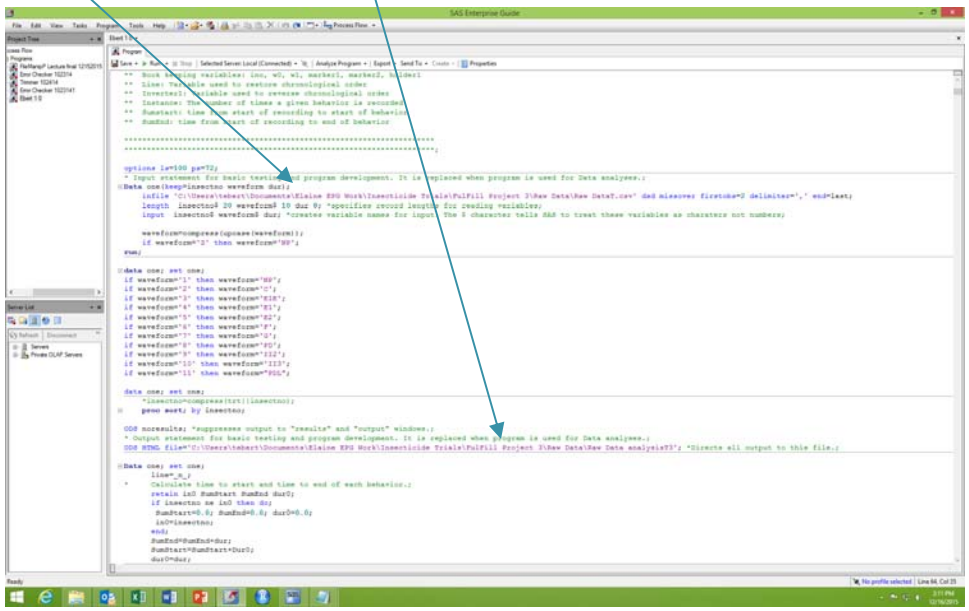
- You have a clean data file.
- Open Ebert 1.0.
- Change the infile statement to read the data in AphidData1aT.csv.
- Change the ODS HTML file= statement to give the program a place to dump the output.
- See next slide for a visual.
- Run the program.

EPG Work-shop

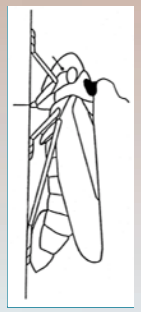


Change infile and ODS filenames

- Here and here



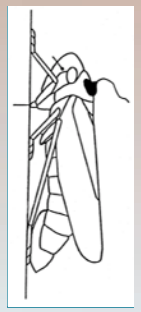
EPG Work-shop



Results

- Open the results file in Word. Allow Word some time to process the file. Something like 2 minutes should be good in most cases.
- Select all (Control a) and copy (Control c).
- Go to Excel, and Paste special, then choose "text" from the menu choices.
- This strips off formatting and avoids problems with merged cells in Excel.

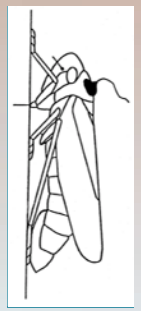
EPG Work-shop



Condensing Output

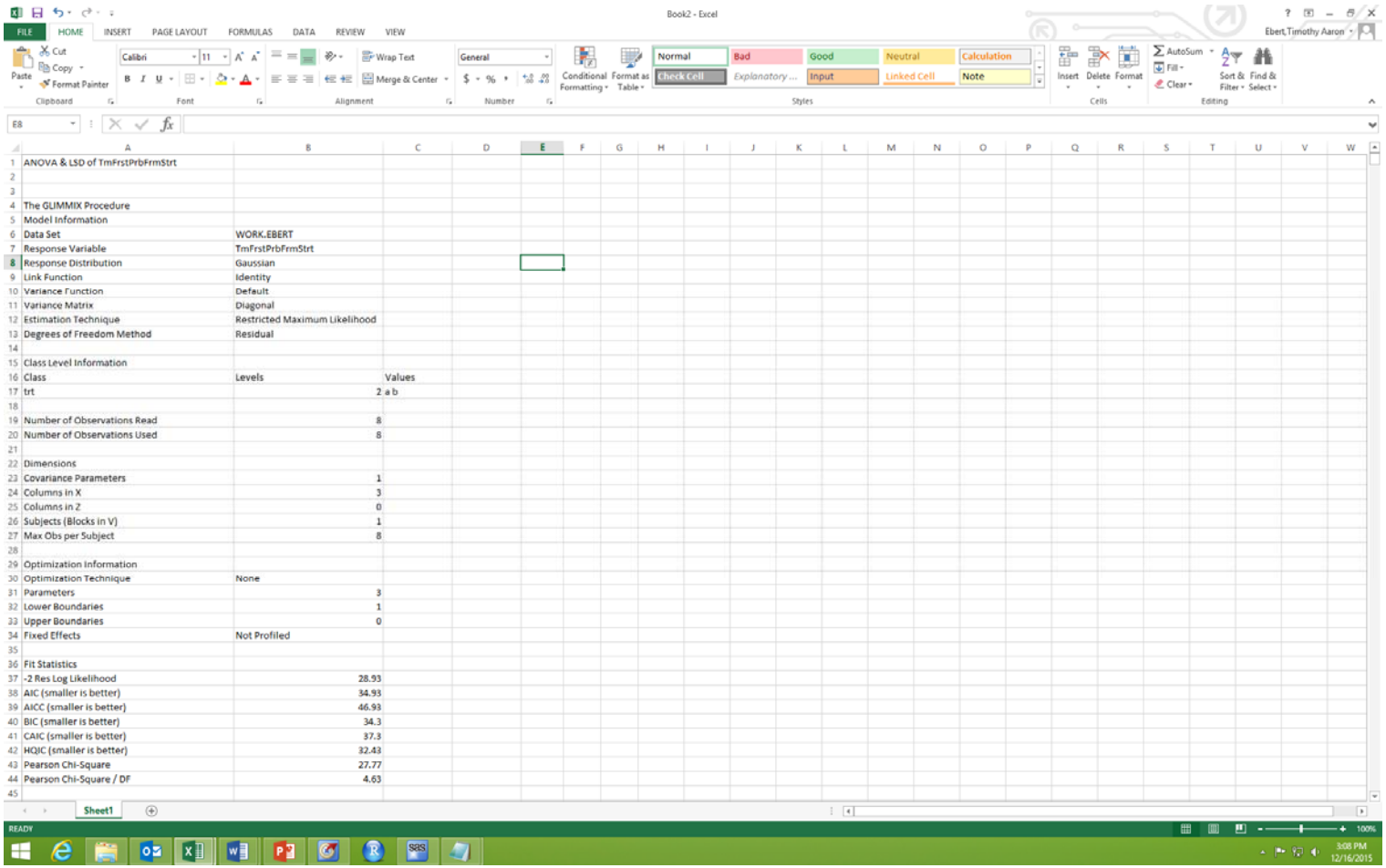
- SAS produces many pages of output. You want a simple table with the results.
- Each Glimmix statement produces results that have all the same format.
- Use this feature to your advantage.

EPG Work-shop



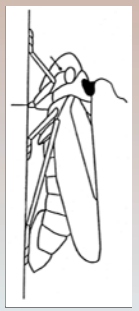
The Output in Excel

- You should now have this.



	A	B	C
1	ANOVA & LSD of TmFrstPrbFrmStrt		
2			
3			
4	The GLIMMIX Procedure		
5	Model Information		
6	Data Set	WORK.EBERT	
7	Response Variable	TmFrstPrbFrmStrt	
8	Response Distribution	Gaussian	
9	Link Function	Identity	
10	Variance Function	Default	
11	Variance Matrix	Diagonal	
12	Estimation Technique	Restricted Maximum Likelihood	
13	Degrees of Freedom Method	Residual	
14			
15	Class Level Information		
16	Class	Levels	Values
17	trt	2	a b
18			
19	Number of Observations Read	8	
20	Number of Observations Used	8	
21			
22	Dimensions		
23	Covariance Parameters	1	
24	Columns in X	3	
25	Columns in Z	0	
26	Subjects (Blocks in V)	1	
27	Max Obs per Subject	8	
28			
29	Optimization Information		
30	Optimization Technique	None	
31	Parameters	3	
32	Lower Boundaries	1	
33	Upper Boundaries	0	
34	Fixed Effects	Not Profiled	
35			
36	Fit Statistics		
37	-2 Res Log Likelihood	28.93	
38	AIC (smaller is better)	34.93	
39	AICC (smaller is better)	46.93	
40	BIC (smaller is better)	34.3	
41	CAIC (smaller is better)	37.3	
42	HQIC (smaller is better)	32.43	
43	Pearson Chi-Square	27.77	
44	Pearson Chi-Square / DF	4.63	
45			

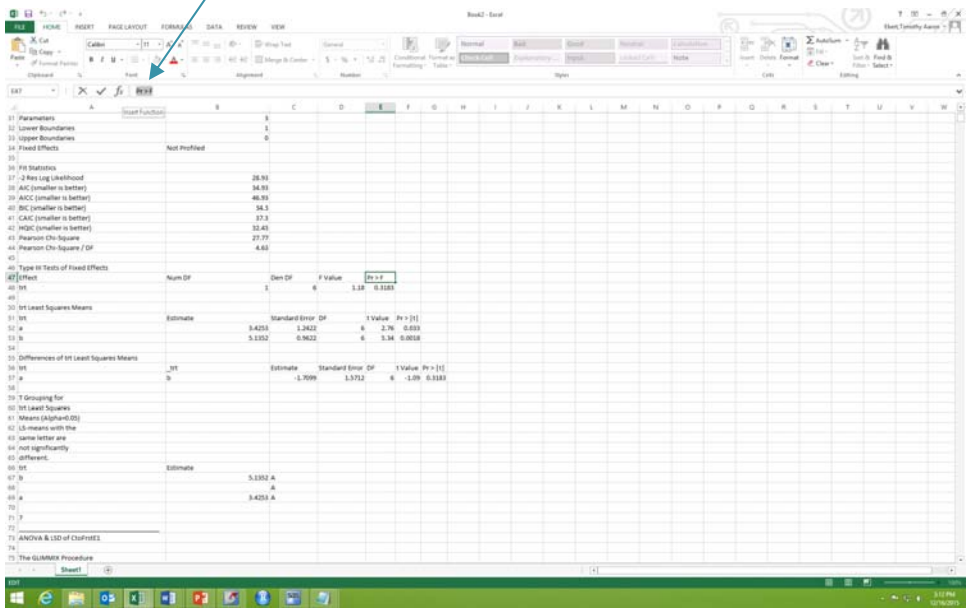
EPG Work-shop



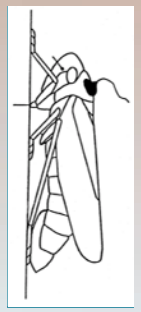
Extracting the useful bits

- Copy the contents in cell E47. This is important. It process only works this way, but I don't know why.

Copy this



EPG Work-shop



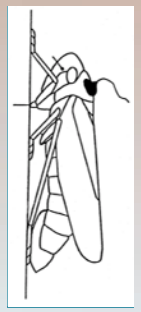
Extracting

- Type this into cell I48

=IF($E47="Pr > F",E48,"")

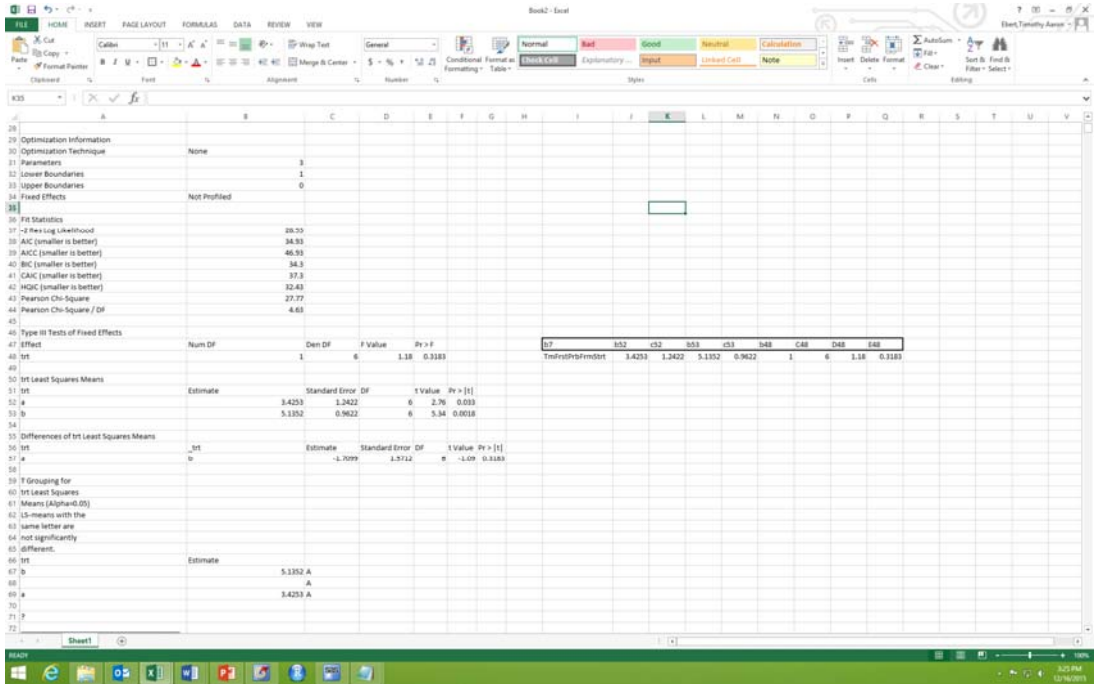
- Make sure that the Pr > F is entered into the formula using the paste command.
- Fill right to cell L48
- In these cells, change the e48, f48, g48, etc… to useful cells.
- I will typically have the first cell (that currently has e48) to cell b7 (the variable name).

EPG Work-shop

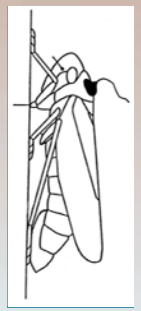


Extracting

- So I will have something like this, where the contents of the cells in the highlighted box indicate the cell that I have used in the formula.



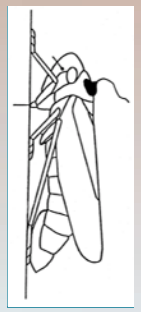
EPG Work-shop



Extracting

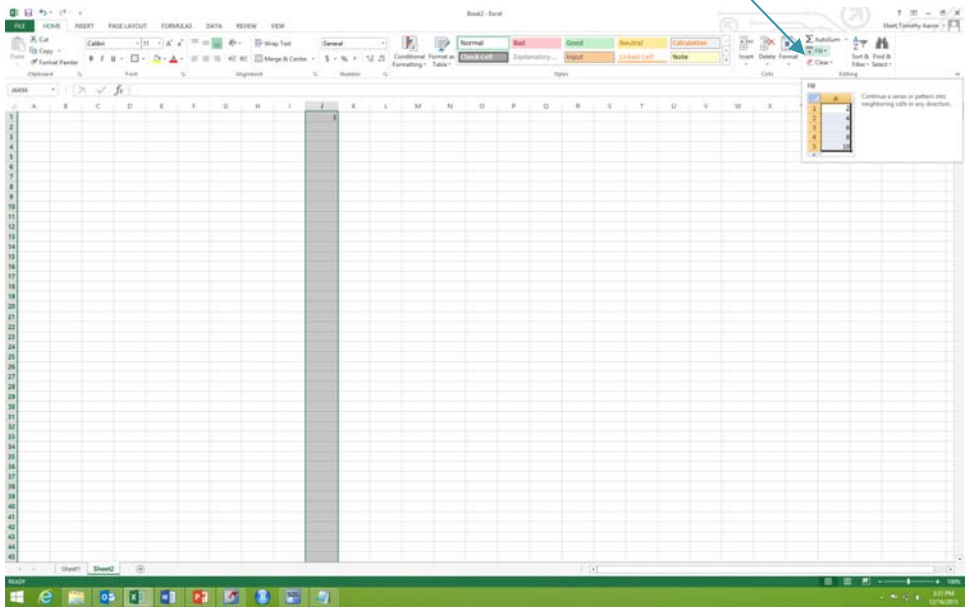
- Fill cells i48 through q48 down to the end of the results (row 6491).
- Copy columns I through q.
- Open another worksheet, and paste values.
- In cell j1 type the number one.
- Select all cells from j1 through j6491.

EPG Work-shop

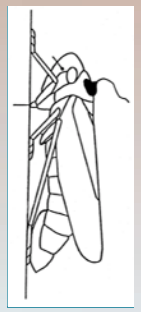


Extracting

- Right click the fill menu, and select series.



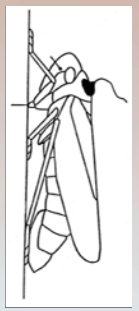
EPG Work-shop



Extracting

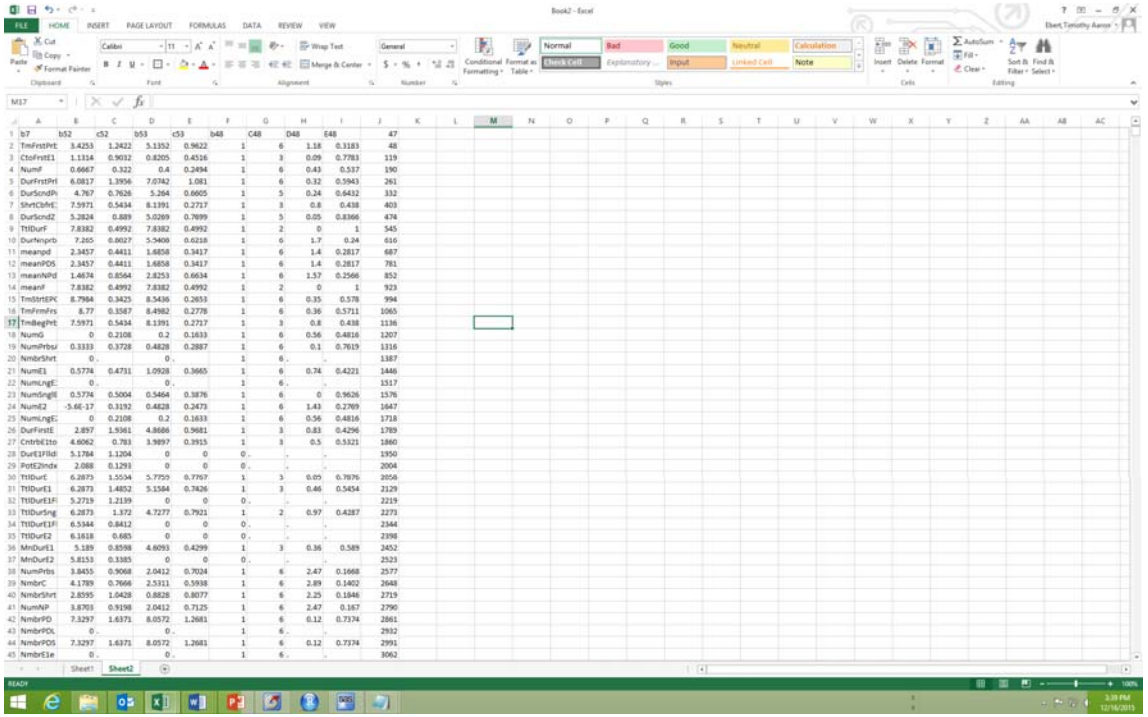
- The default (type=linear, step=1) is great
- Column J should now have integers from one to 6491
- Select columns A through J
- Sort column A in descending order.
- Select cells A89 through j89 through A6491 through j6491.
- Delete

EPG Work-shop

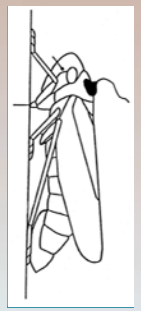


Extracting

- Select columns J through A (not A through J) and sort smallest to largest. You should now have this:



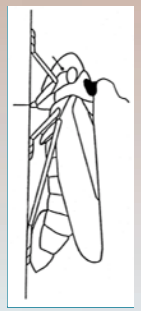
EPG Work-shop



Done

- If this was real data from your experiment then you should go and figure out why some variables like NumLngE2 have periods. In this case, treatment A had no E2, so it is easily explained.
- Further down there is a #Name? This is for the variables TtlDurF4 and TtlDurF5. The trimmed recording only goes to 2.8 hours. So this is not really a problem.

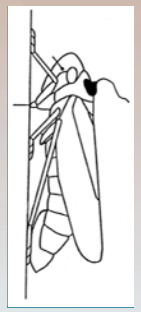
EPG Work-shop



End

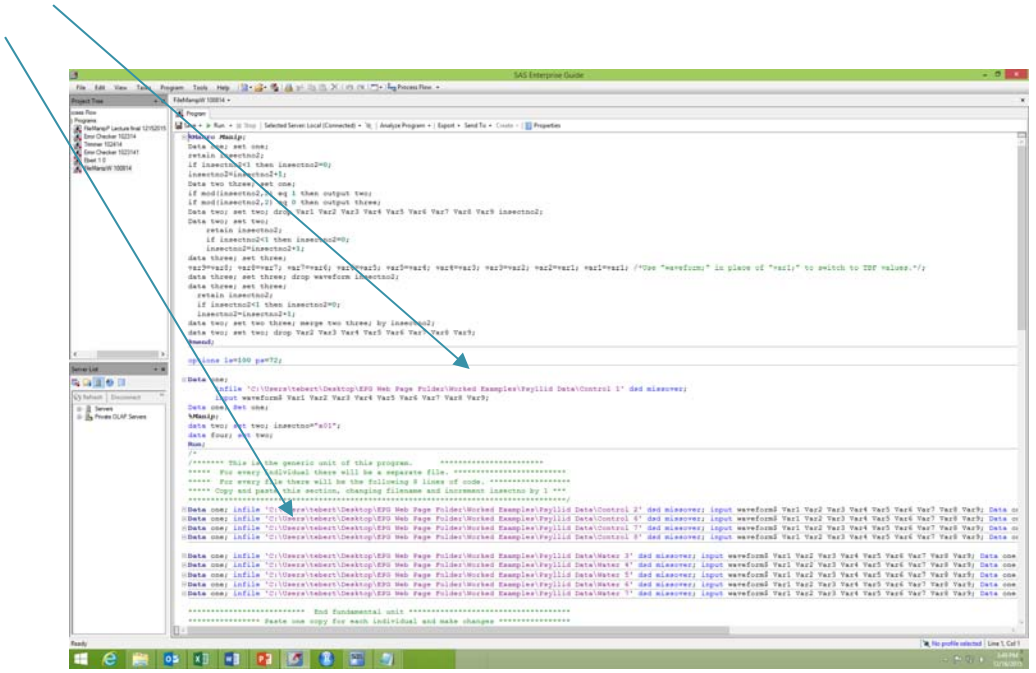
- This ends the basic tutorial.
- The process is almost the same for Windaq files.
- The only real difference is that you have to use the FileManipW program rather than the FileManipP program.

EPG Work-shop

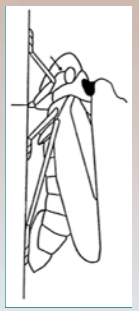


FileManipW

- The difference in terms of use is that FileManipW looks slightly different.
- The code is condensed so each line needs a different infile.

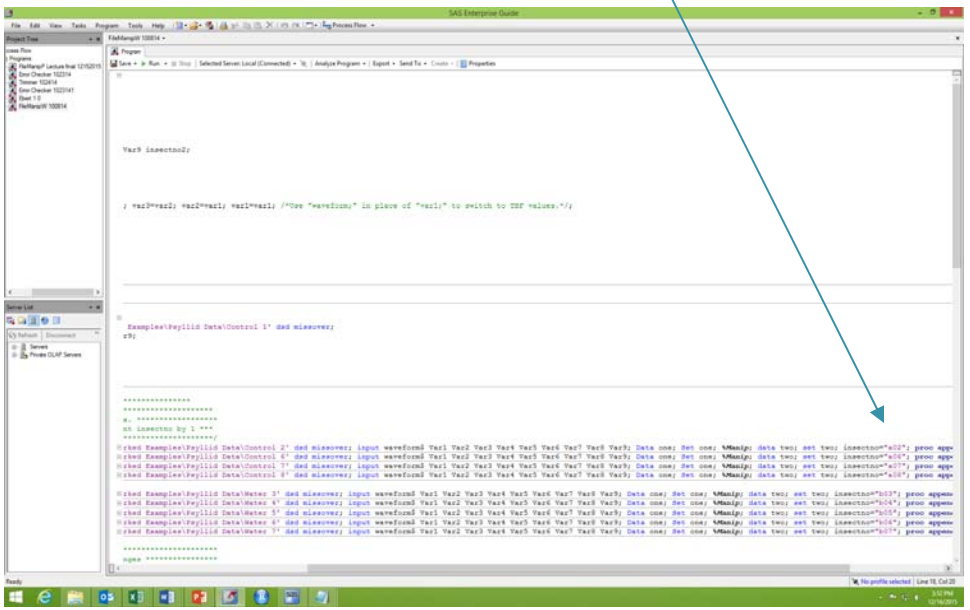


EPG Work-shop

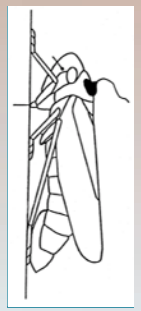


FileManipW

- And you need to scroll over to find the place to change the insect number.



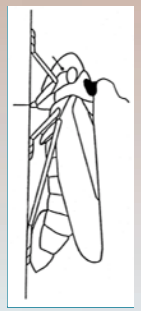
EPG Work-shop



Insect Number

- The format of the first insect number is very important.
- If the first insect number is a1, and you type in "a1" then you will get an error message when you get to insect "a10".
- To avoid this type in a leading space " a1"

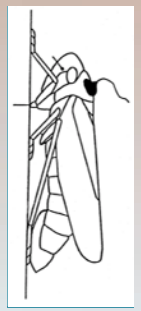
EPG Work-shop



Insect Number

- In sorting insect "a11" will appear after a1, and you will have to go all the way to insect "a19" before you get to insect "a2".
- To avoid this issue type in zeros.
- So insect "a1" is now insect "a01" if you have fewer than 100 insects per treatment, or insect "a001" if you have more that 100 but fewer than 1000.

EPG Work-shop



The Next Steps

- Here is a list of steps.
  - Errors: An exercise where you try to find as many errors as possible.
  - Introduction to Backus 1.0
  - Introduction to Ebert X.X
  - Data Analysis
  - How the programs work, customizing the analysis
    - Programming FileManip
    - Programming Error Checker
    - Programming Trimmer
    - Programming Ebert X.X

EPG Work-shop