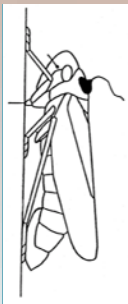


Ebert 1.0: The Preliminaries

- Go to:
 - <http://www.crec.ifas.ufl.edu/extension/epg/>
- Select Ebert

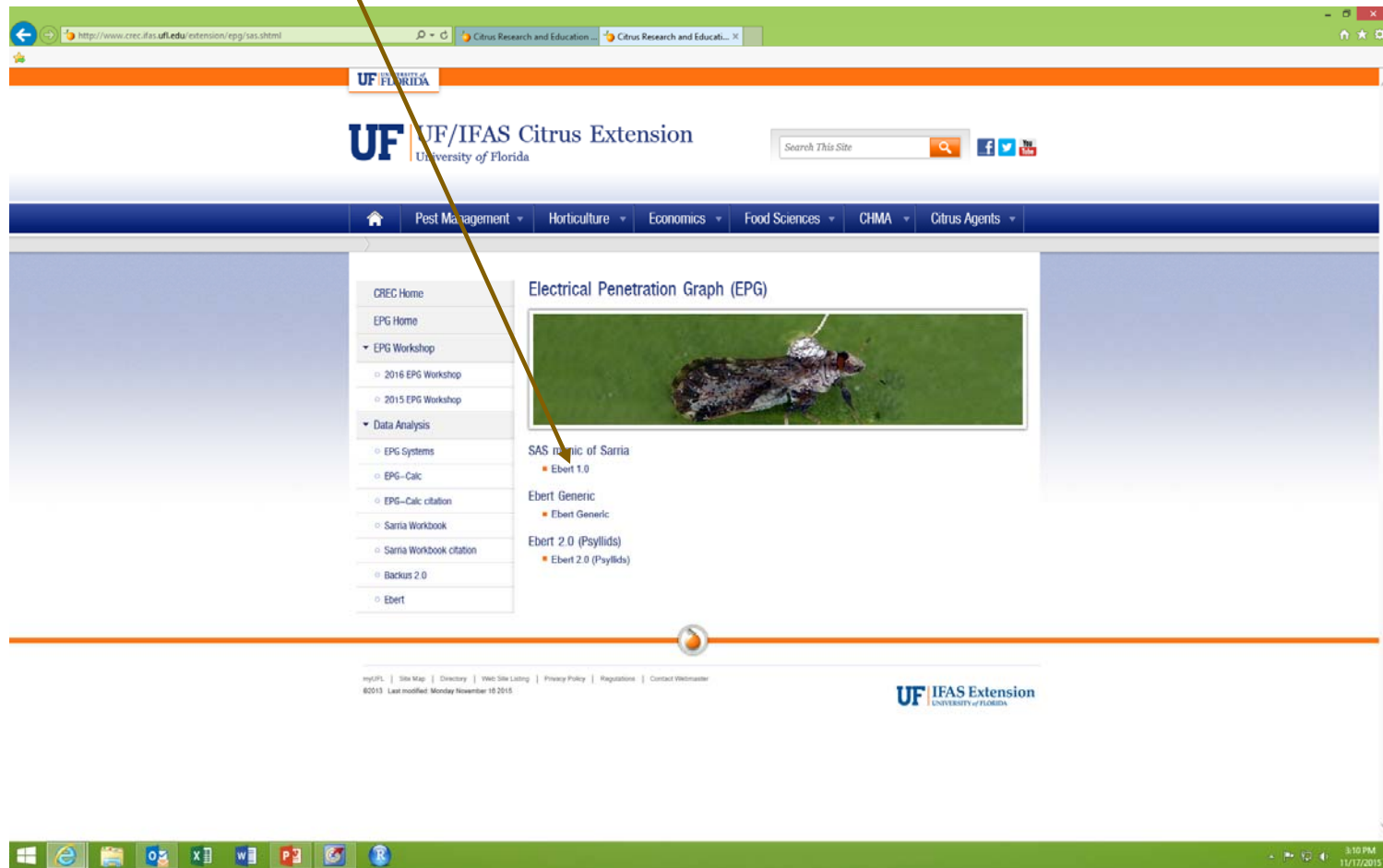
The screenshot shows a web browser window displaying the UF/IFAS Citrus Extension website. The page title is "Electrical Penetration Graph (EPG)". The main content area features a photograph of a citrus thrips on a leaf. Below the photo, there is a "Welcome" section with text describing the site's focus on hemipteran feeding behavior and EPG methodologies. A sidebar on the left contains a navigation menu with the following items: CREC Home, EPG Home, EPG Workshop (with sub-items for 2016 and 2015 workshops), Data Analysis (with sub-items for EPG Systems, EPG-Calc, EPG-Calc citation, Samia Workbook, and Samia Workbook citation), Business 2.0, and Ebert. A yellow arrow points from the "Ebert" link in the sidebar to the "Ebert" link in the main content area. The website footer includes the UF/IFAS Extension logo and contact information.

EPG
Workshop



Download all files for Ebert 1.0

- Here



The screenshot shows a web browser window displaying the UF/IFAS Citrus Extension website. The URL in the address bar is <http://www.crec.ifas.ufl.edu/extension/epg/sas.shtml>. The page features a navigation menu with options like Pest Management, Horticulture, Economics, Food Sciences, CHMA, and Citrus Agents. A sidebar on the left lists various resources under 'Data Analysis', including 'EPG systems', 'EPG-Calc', and 'EPG-Calc citation'. The main content area is titled 'Electrical Penetration Graph (EPG)' and includes a photograph of a pest on a leaf. Below the photo, there are three sections: 'SAS program of Sarria' with a link for 'Ebert 1.0', 'Ebert Generic' with a link for 'Ebert Generic', and 'Ebert 2.0 (Psyllids)' with a link for 'Ebert 2.0 (Psyllids)'. A blue arrow points from the text 'Here' to the 'Ebert 1.0' link. The footer contains site information and the UF/IFAS Extension logo. The Windows taskbar at the bottom shows the time as 3:10 PM on 11/17/2015.

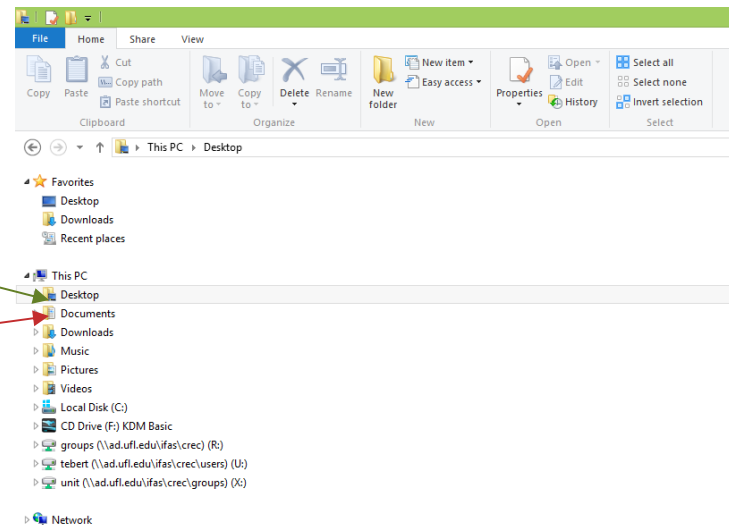
EPG
Work-
shop



Location

- **Create a new folder on your desktop.**

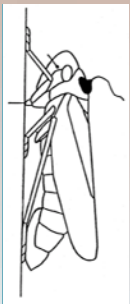
- For this exercise, please save on the desktop. Later on you can move the files wherever you like.
- Do not put under “Documents”
- Call the folder “EPG Analysis”



Here

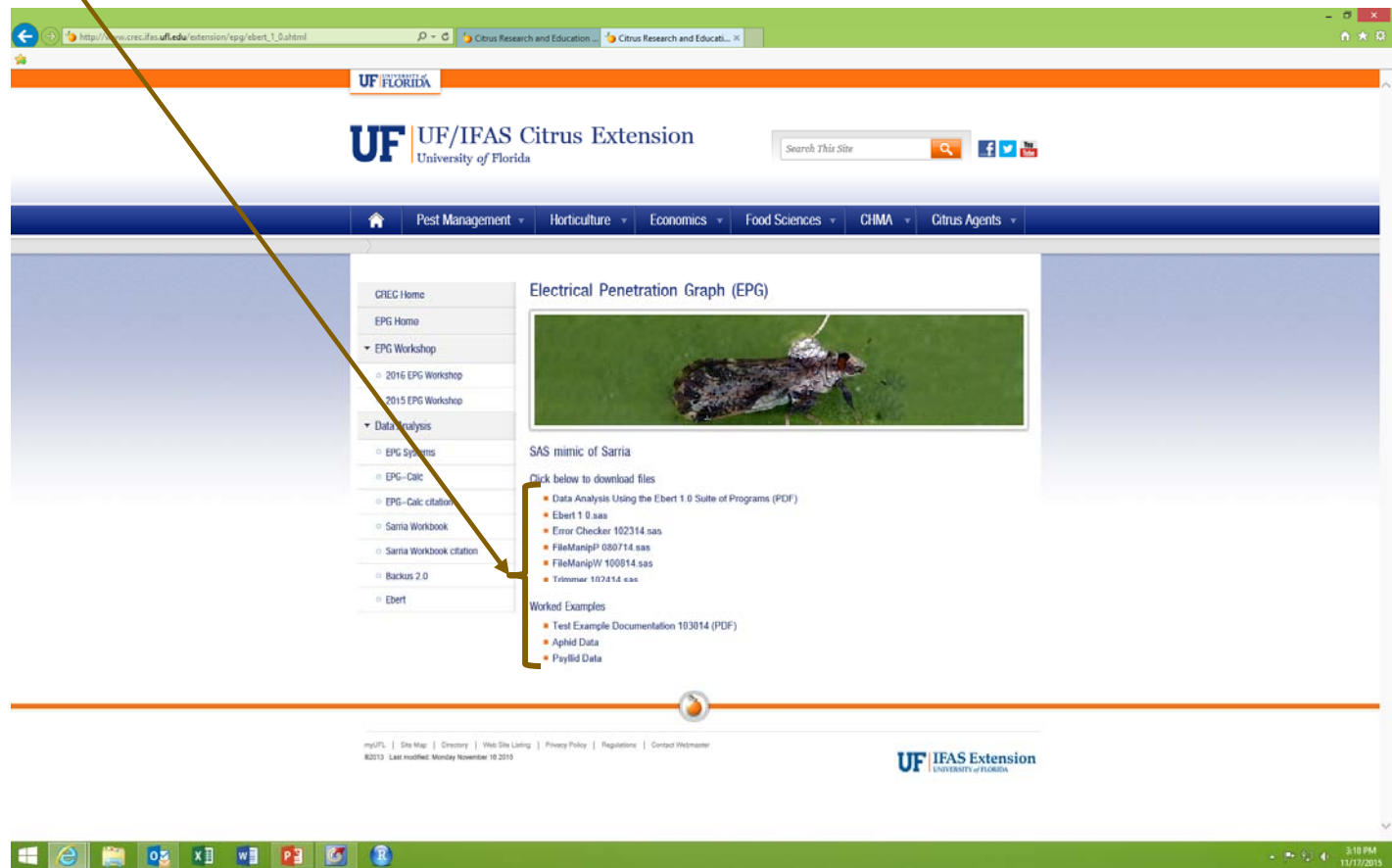
Not Here

EPG
Work-
shop



Download Files

- All of these files



The screenshot shows a web browser window displaying the UF/IFAS Citrus Extension website. The page title is "Electrical Penetration Graph (EPG)". A sidebar on the left contains a navigation menu with items like "CREC Home", "EPG Home", "EPG Workshop", "Data Analysis", and "Ebert". The main content area features a photograph of a citrus thrips on a leaf. Below the photo, there is a section titled "SAS mimic of Sarria" with a sub-heading "Click below to download files". This section lists several files for download:

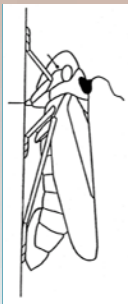
- Data Analysis Using the Ebert 1.0 Suite of Programs (PDF)
- Ebert 1.0.sas
- Error Checker 102314.sas
- FileManipP 080714.sas
- FileManipW 100814.sas
- Trilmemar 102414.sas

Below this list is a "Worked Examples" section with the following items:

- Test Example Documentation 103014 (PDF)
- Aphid Data
- Psyllid Data

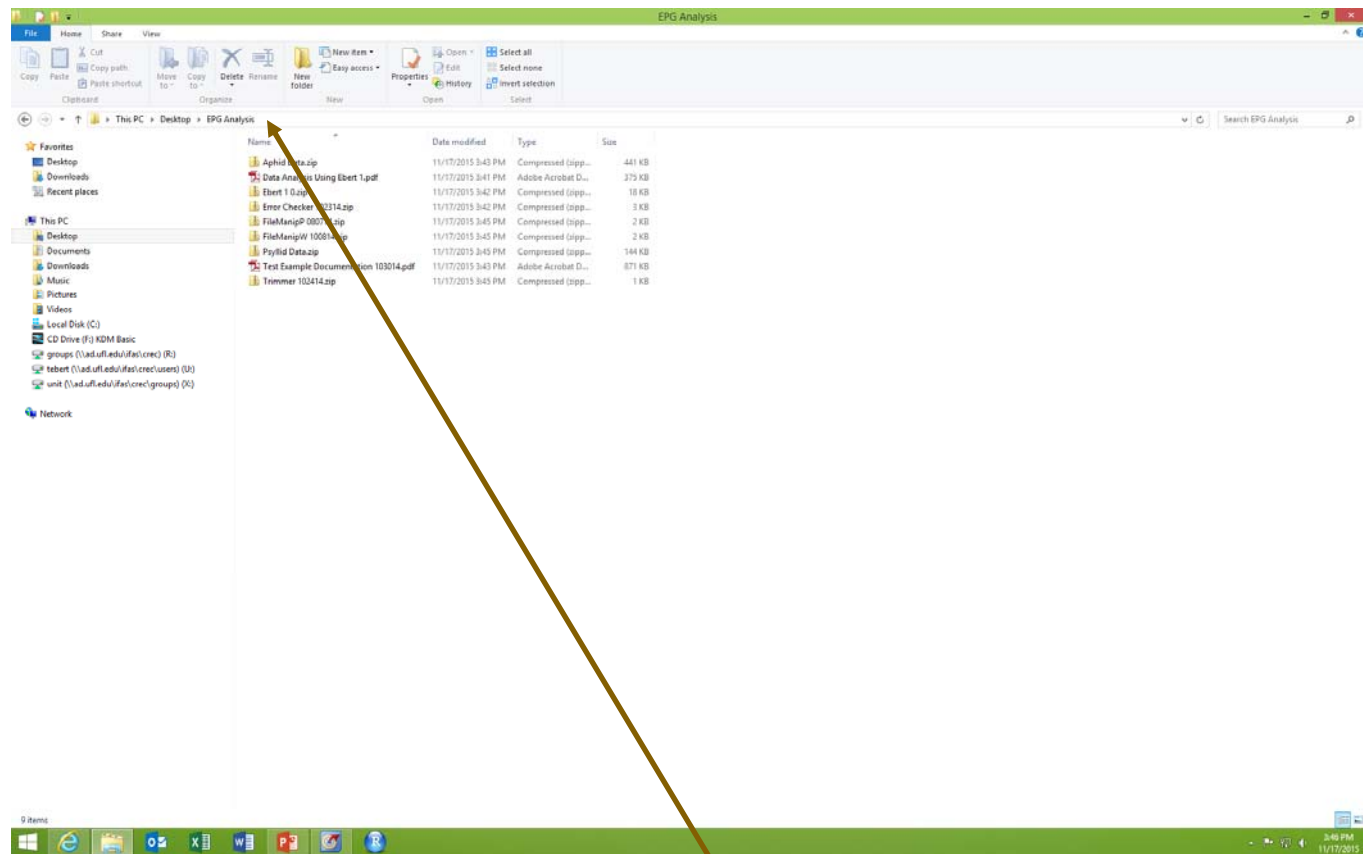
A yellow arrow points from the bullet point "All of these files" to the list of files. The website footer includes the UF/IFAS Extension logo and contact information.

EPG
Workshop



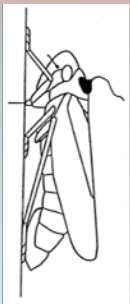
EPG Analysis

- You should have a desktop with



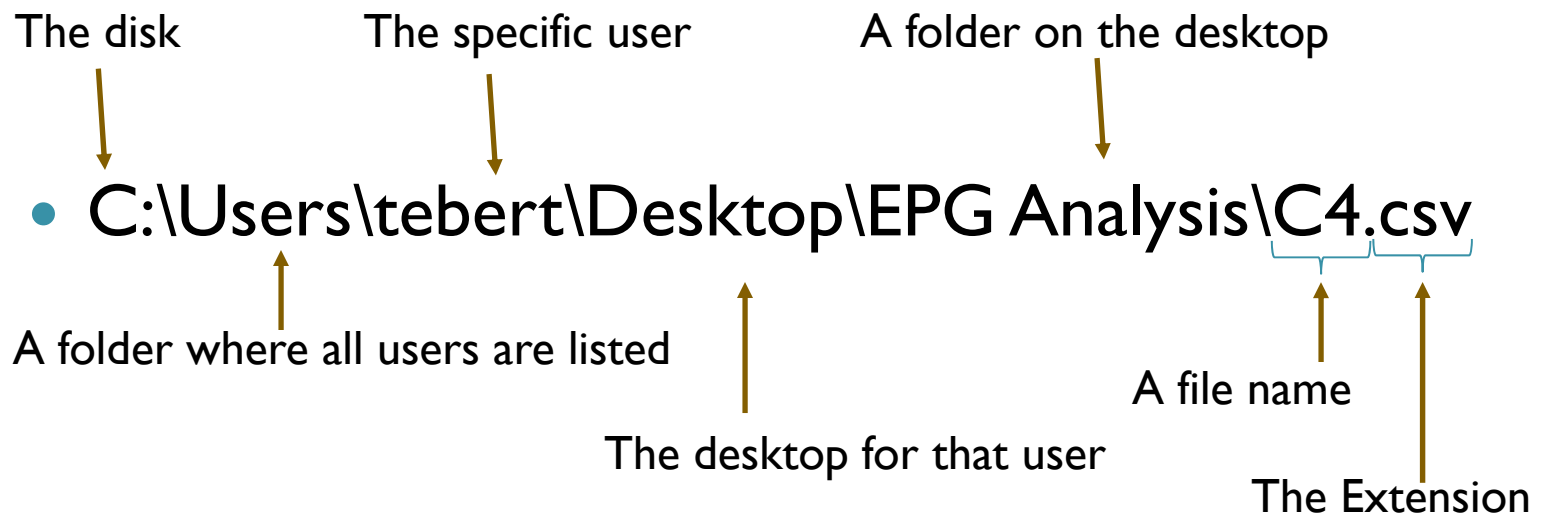
- Click here to see path

EPG
Work-
shop

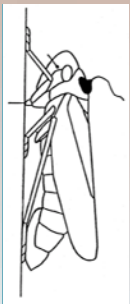


The Path Name

- The path name is the set of folders and subfolders that must be followed to get to a specific file.



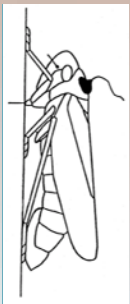
EPG
Work-
shop



Recommended short cuts

- “Control c” for copy: to copy selected text or figure
- “Control v” for paste
- “Control x” for cut
- “Control s” for save: to save a file
- “Control f” for find
- “Control p” for print active file
- In all cases hold control key down and hit the lower case letter.
- You will do the first three tasks over and over. The faster you are at these tasks the less time this will take.
- The menu locations of these tasks changes with different software or upgrades. The shortcuts have not changed in the last 30+ years. The shortcuts to cross platforms (PC versus Mac), and software companies.

EPG
Work-
shop



Recommended short cuts #2

- “Control h” for change
- “Control a” for select all
- In Excel the following are also useful
 - “Control d” for fill down
 - “Control r” for fill right
 - “Control End ↓” for select down (Press and hold the control key, then the end key, and then the down arrow.)
 - “Control End →” for select right

EPG
Work-
shop



The Files: What do you have?

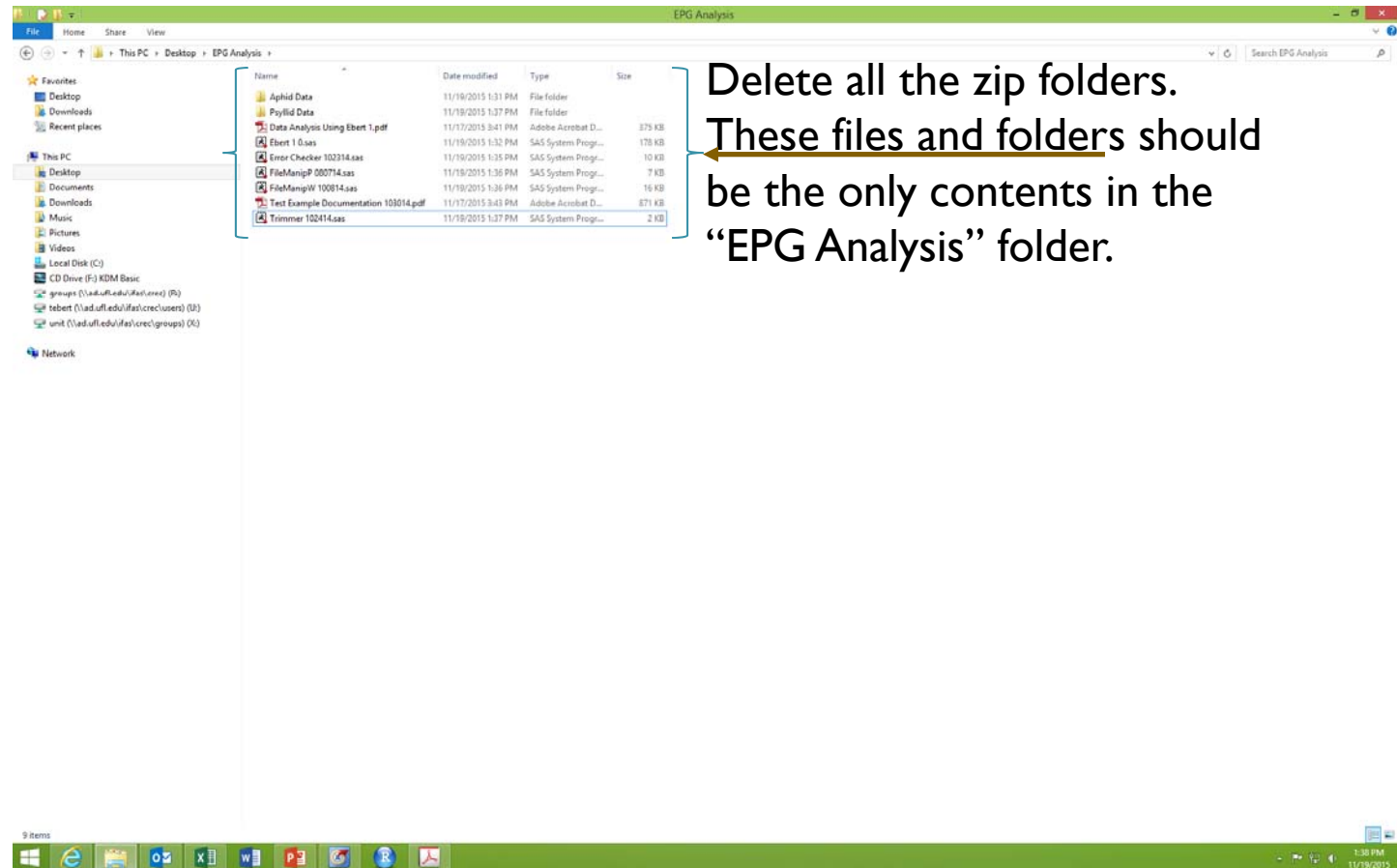
- Introductions
 - Raw data
 - SAS programs
-
- Please unzip all files if you have not already done so.
 - Rearrange everything such that you have two folders (Aphid Data and Psyllid Data) and 7 files in your EPG Analysis folder.
 - Extra folders should be deleted. The “Aphid Data” and “Psyllid Data” folders should not have any subfolders. Everything with a zip extension should be deleted after the zip file has been extracted and saved with the same name.

EPG
Work-
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Final Check

- You should have the following in a folder named “EPG Analysis” on your desktop.



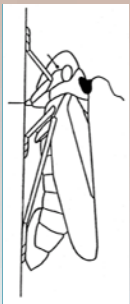
EPG
Work-
shop



Introductions

- Data Analysis Using Ebert 1.pdf
 - This is a tutorial in an instruction manual format.
- Test Example Documentation 103014.pdf
 - A tutorial that goes through data analysis for the two data sets.

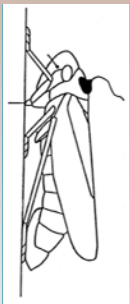
EPG
Work-
shop



Raw Data

- Aphid data is provided using a format that is typical of files created by Probe software. The file extension is ANA.
- Psyllid data is provided using a format that is typical of files created by Windaq waveform browser. There is no file extension.
- All of these files are text files, and can be viewed using Notepad or similar software.

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SAS Programs

- Here are the steps we will go through:
 - Read the raw data
 - Create a new file with all the data
 - Check for errors
 - Remove artificially terminated events (optional)
 - Process SAS output in Excel

EPG
Work-
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SAS

- SAS has two interfaces.
 - SAS
 - Enterprise Guide (=Enterprise)
- I prefer Enterprise
 - It offers an easy view of all active data sets without having to print them out. This will be useful in more advanced sections.

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