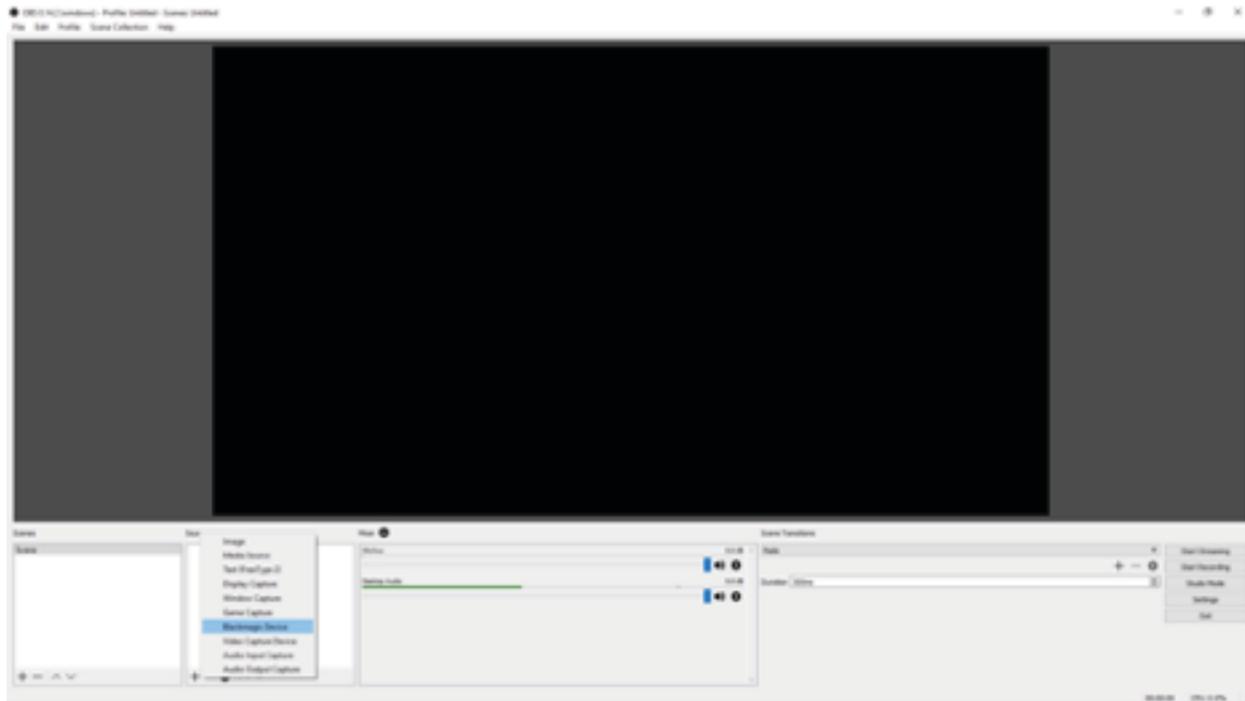


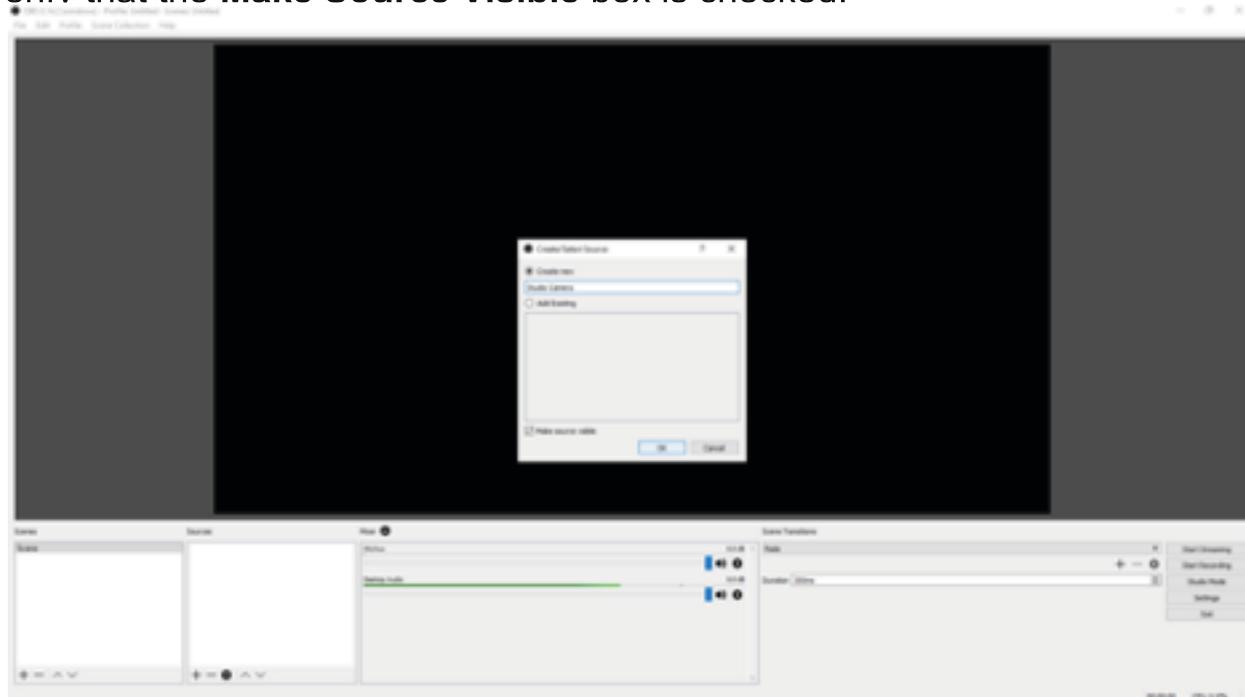
Electronic Insertion of Images with OBS Studio

This tutorial will take you through the steps of digitally inserting PowerPoint or other images using the freeware OBS (<http://obs.com>) and a Blackmagic capture device such as the Blackmagic Intensity or Blackmagic UltraStudio Mini-Recorder. Make sure to download and install the required Blackmagic software onto your computer.

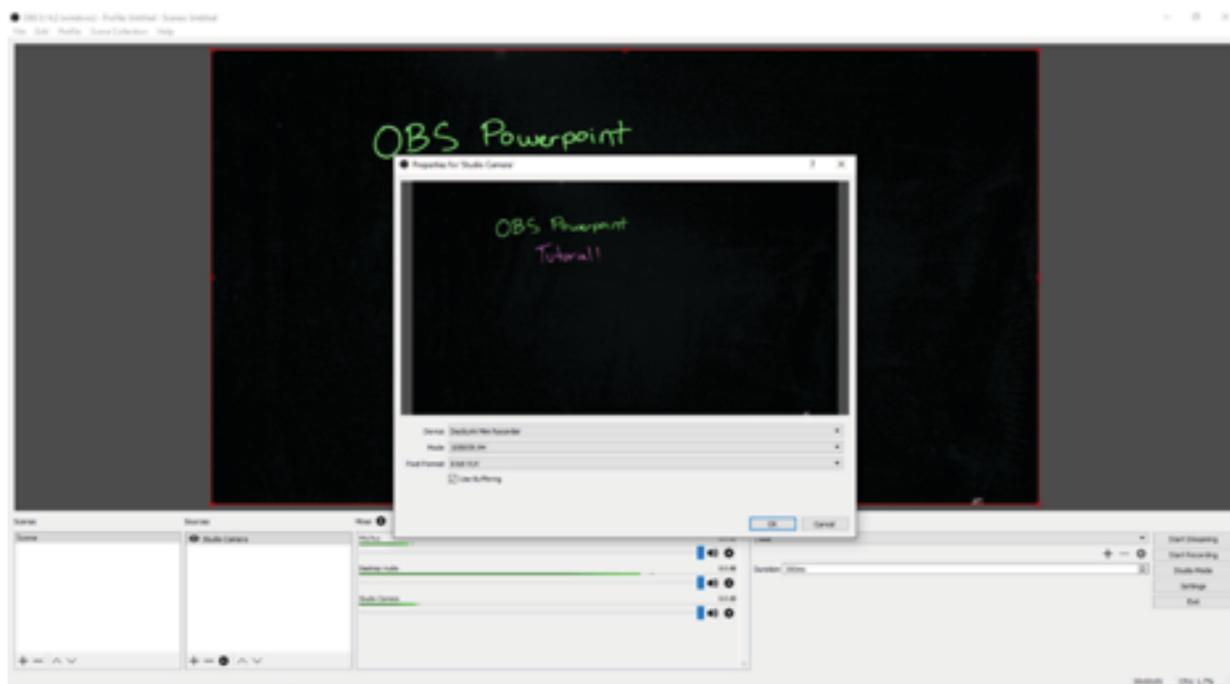
- 1..Download and install OBS Studio. Open up OBS and navigate to the **Sources** pane and click on the **plus** (+) symbol on the bottom to **add** the Blackmagic capture device.



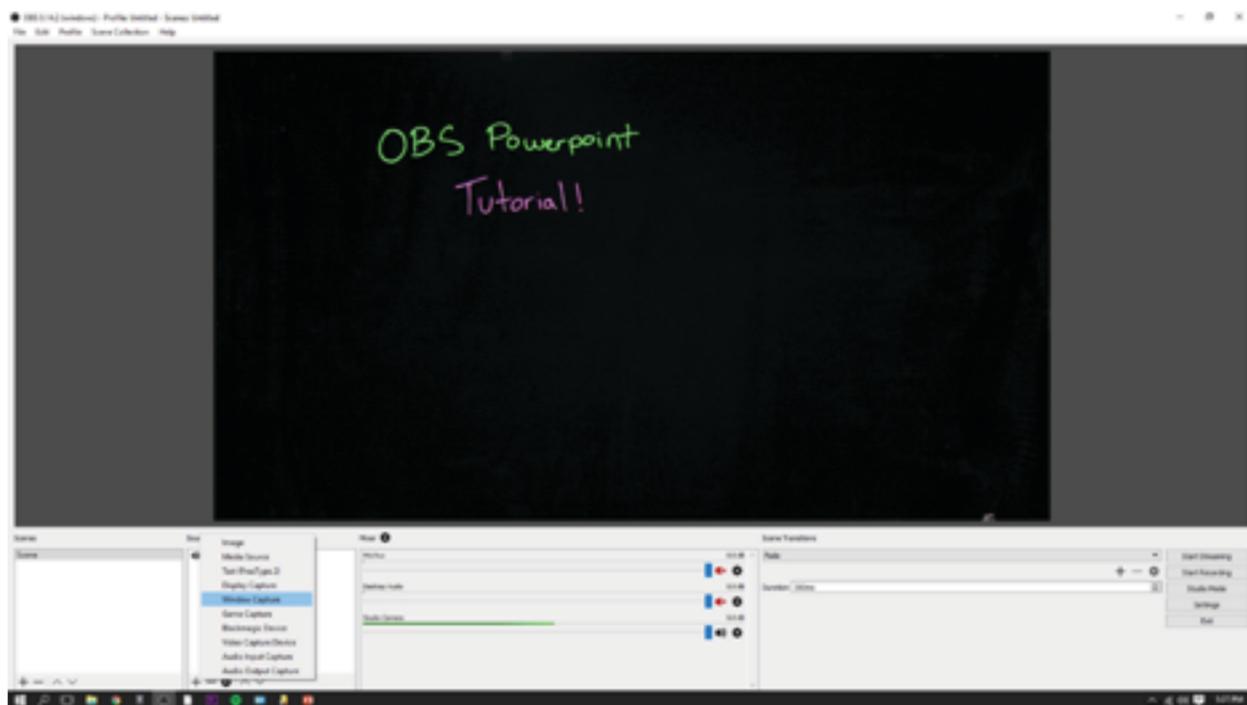
2. On the pop-up window click **Create New** and name the source **Studio Camera**. Verify that the **Make Source Visible** box is checked.



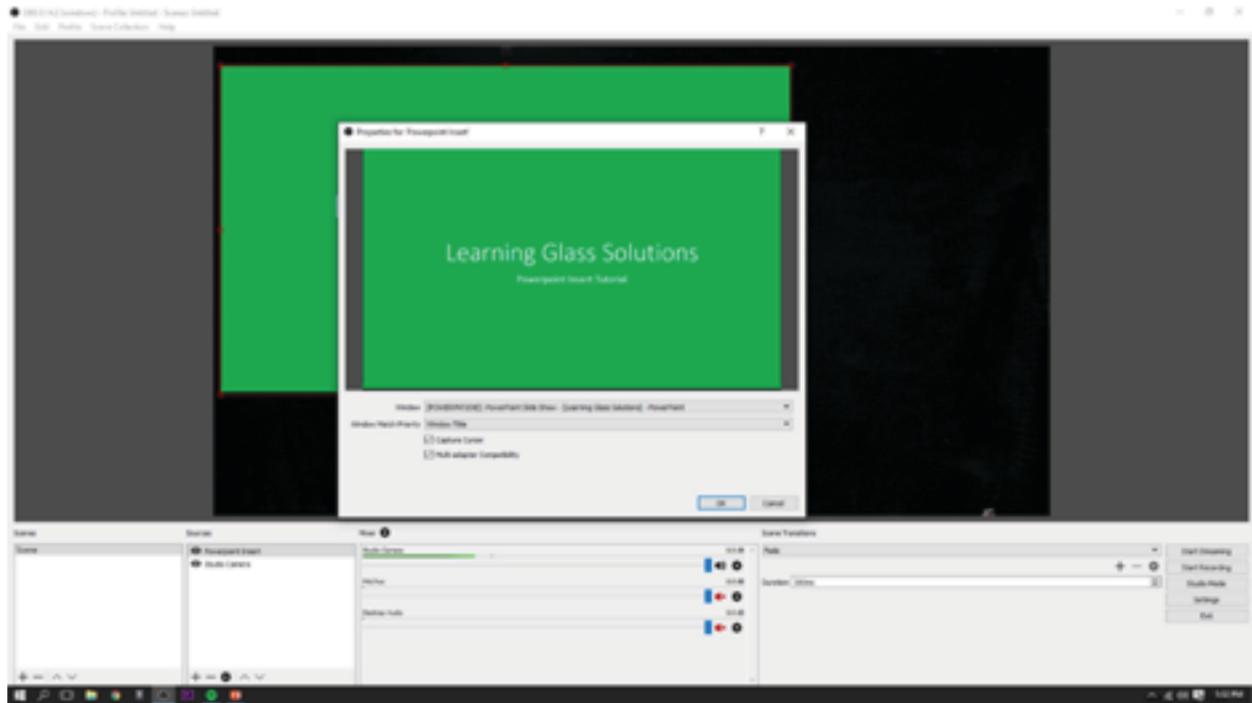
3. After clicking **Okay**, the **Properties** window will open with the Blackmagic device you have selected. Set the mode to **1080i59.94** and the pixel format to **8-bit YUV**.



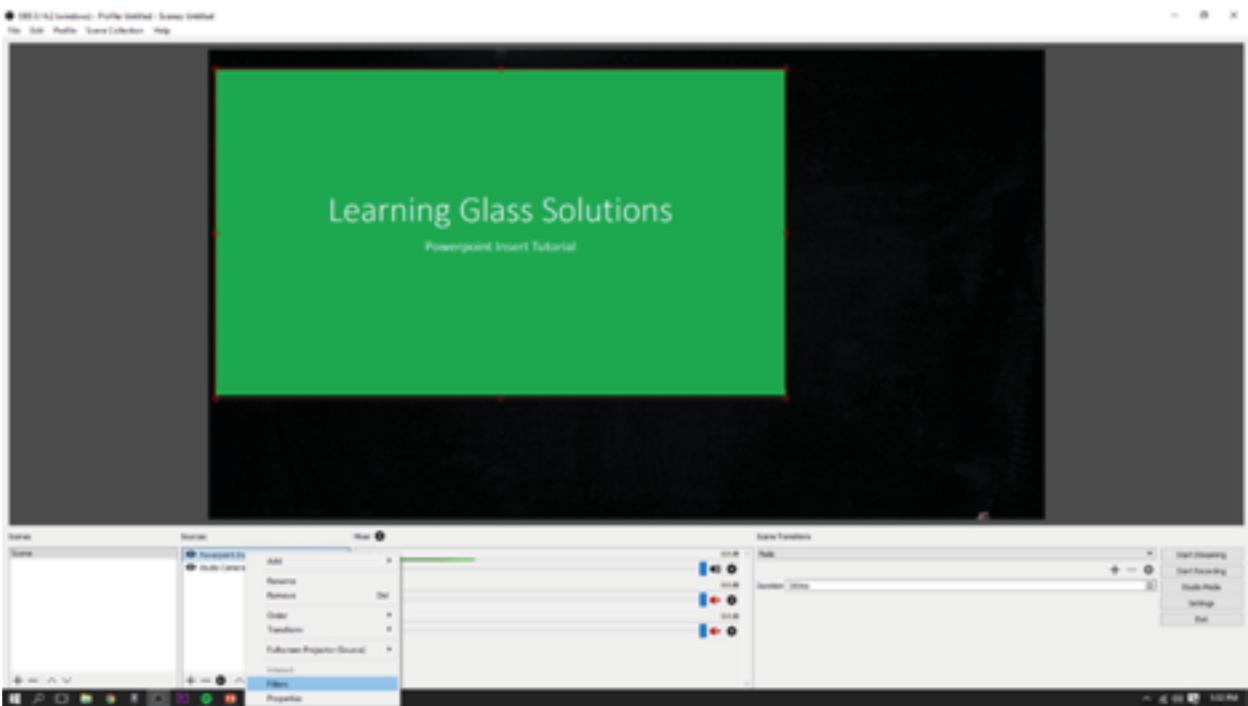
4. Go back to **Sources** at the bottom of the screen and click **plus (+)** once again to add a source and click **Window Capture**.



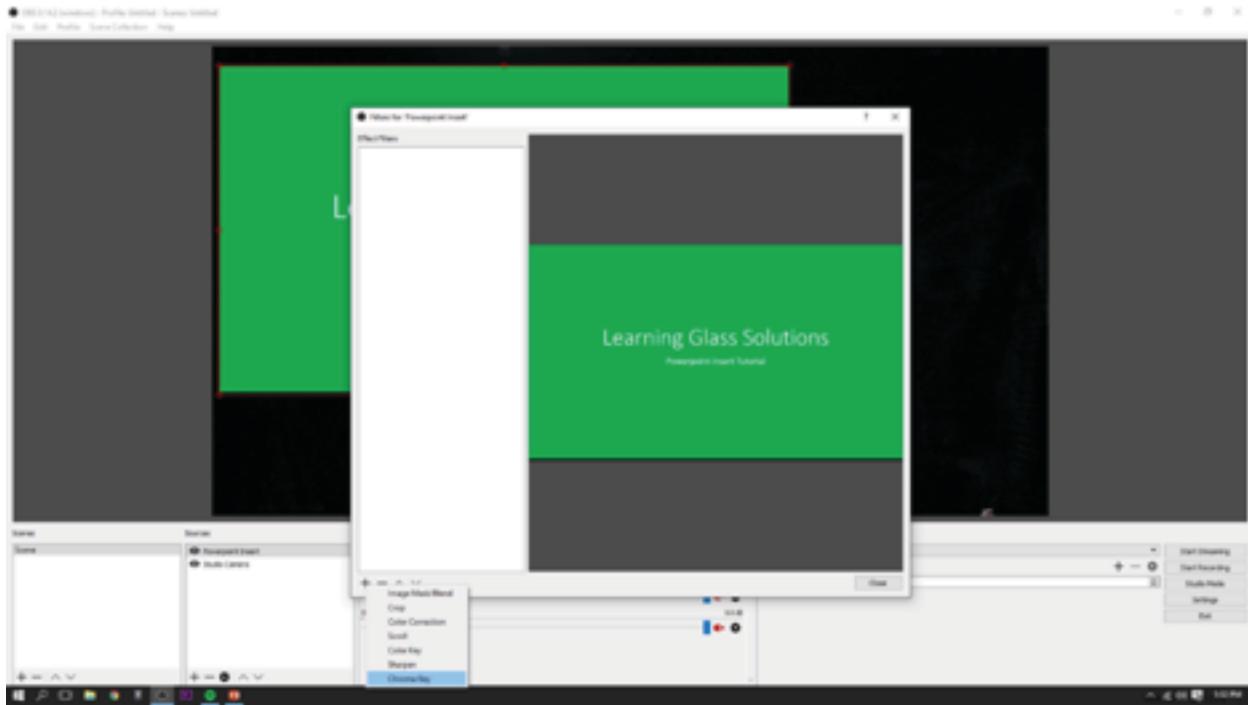
5. Then select the Powerpoint or other window you would like to overlay on the Learning Glass image as shown below.. If you would like to capture the cursor and have it displayed on the output, check the box. Also make sure that the **Multi-adapter Compatibility** box is checked.



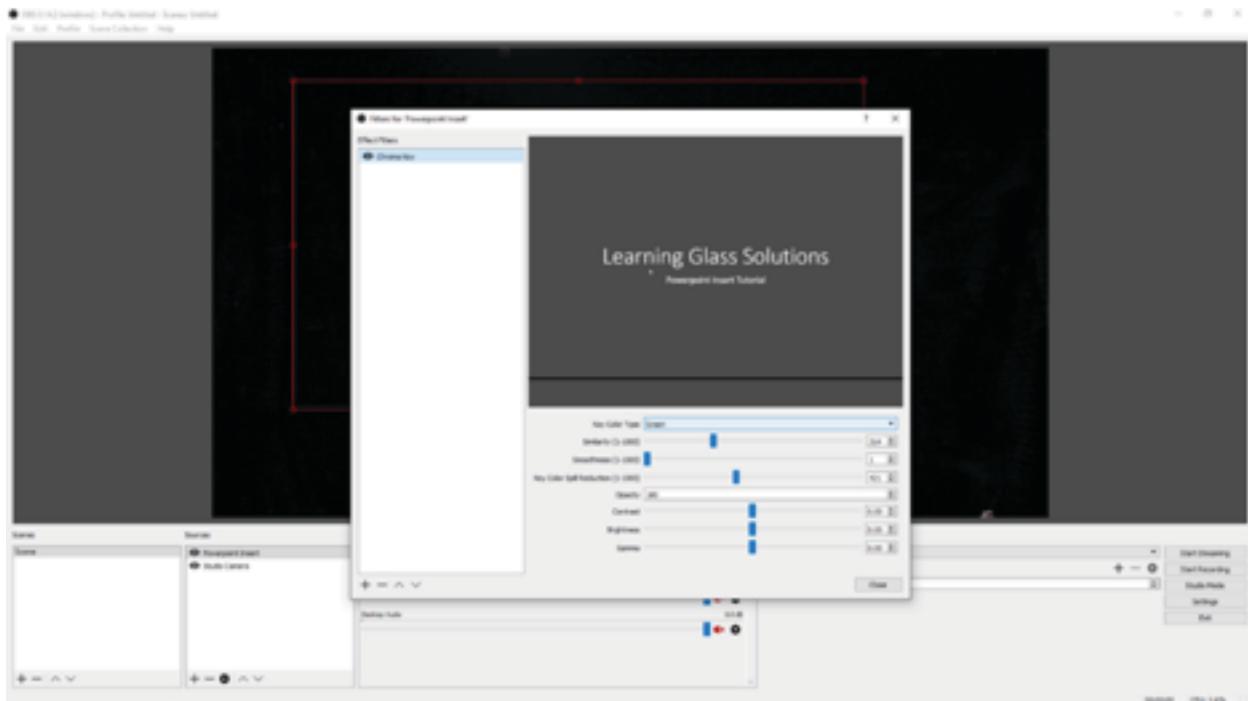
6. Right click on the PowerPoint window insert source that was previous added under the **Sources** pane and click on the **Filters** button.



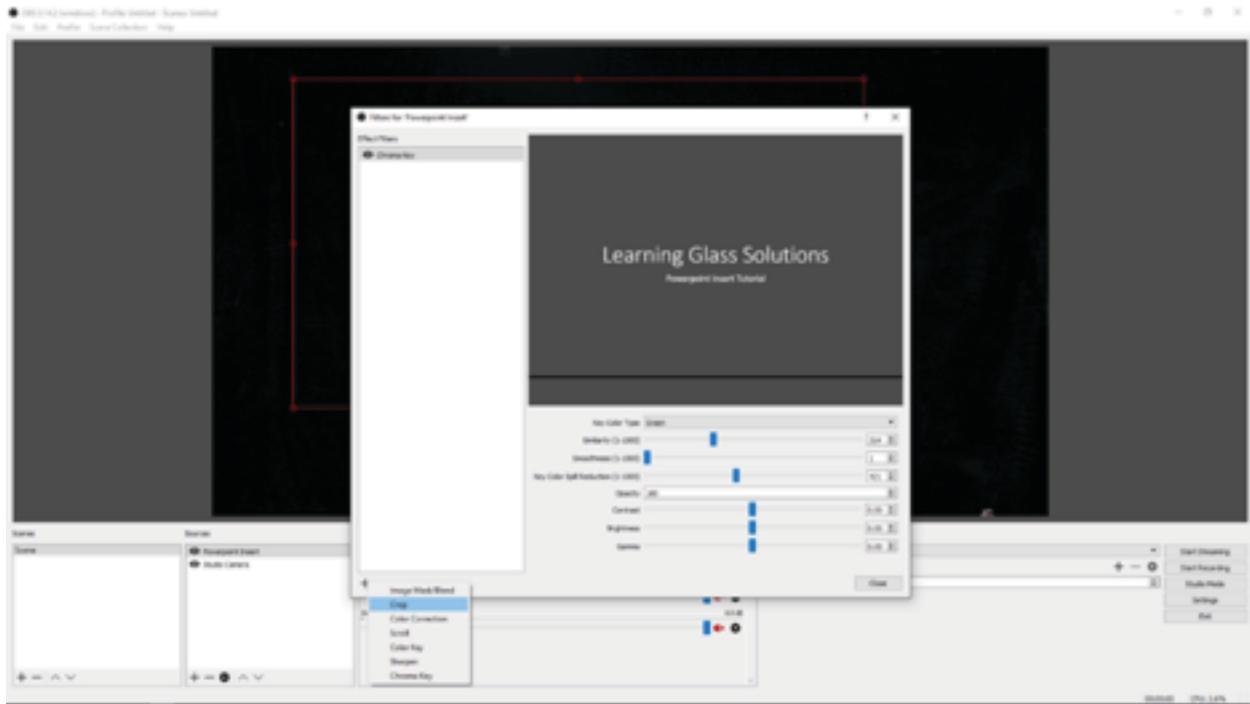
7. On the newly opened sub-window, click on the button at the bottom that allows **Effect Filters**. Then click on **Chroma Key**.



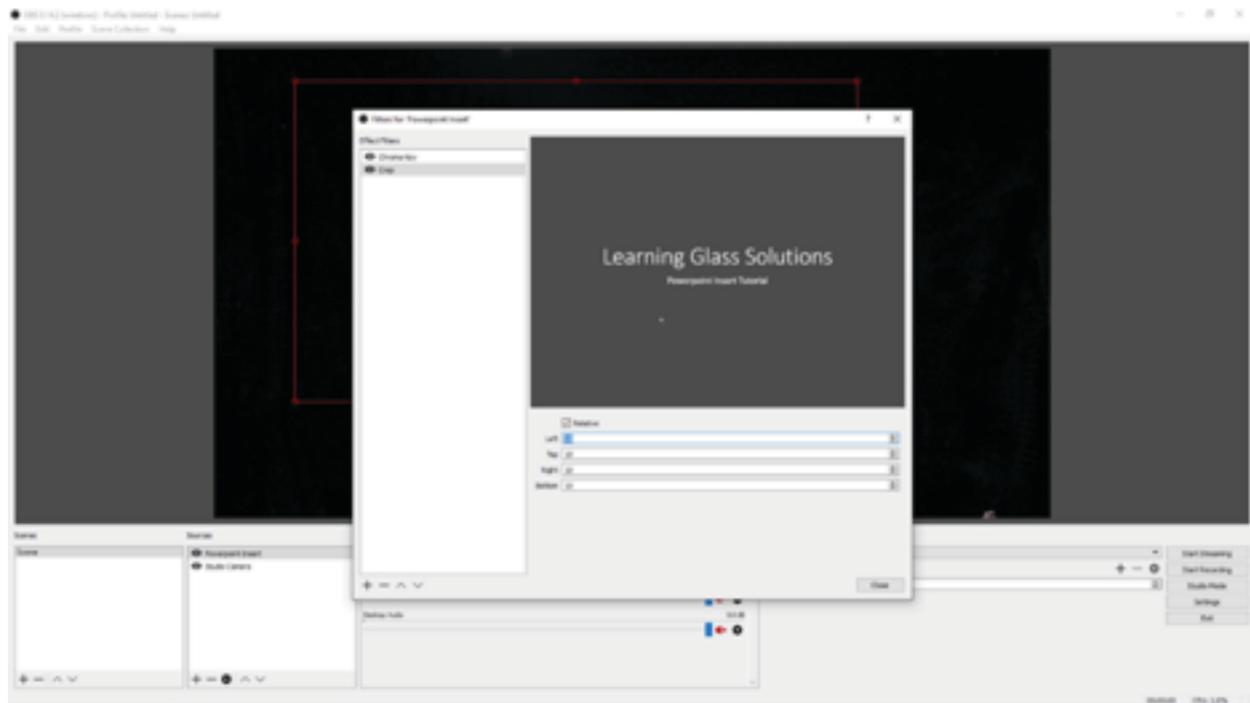
8. Then select the **Chroma Key** effect and adjust the settings as you see fit to get a Key of the green background that you created in Powerpoint. Play around with these settings to get them perfect!



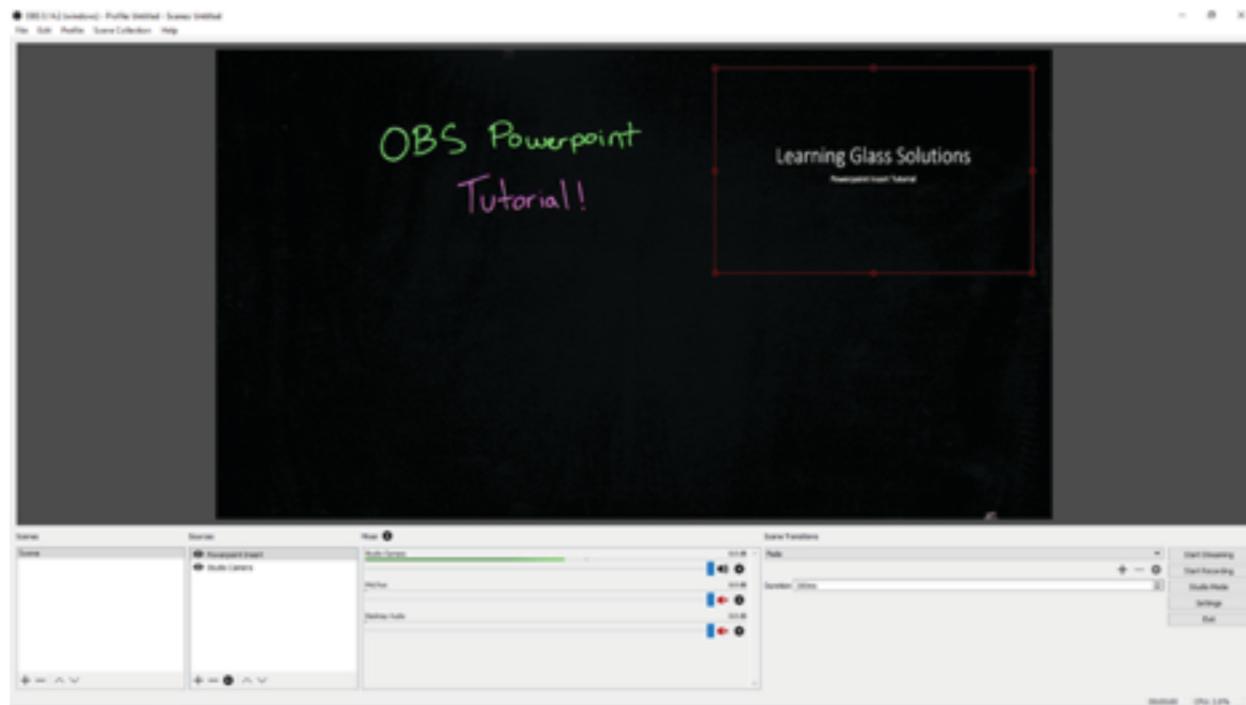
9. Crop off any extraneous borders or unwanted portions of the PowerPoint by selecting the **plus(+)** at the bottom of the screen in the **Filters Settings** for the powerpoint insert source. Then select the **Crop** filter.



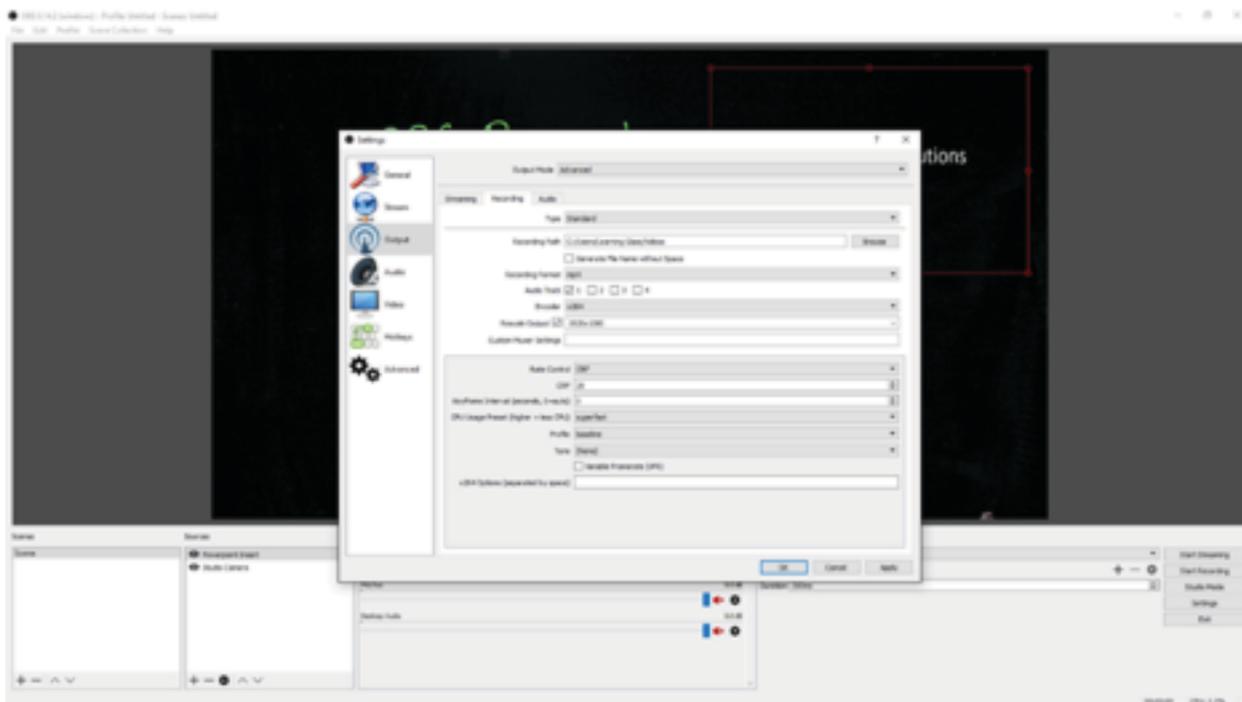
10. Crop about 10 pixels or until the borders go away. by moving the sliders or type in the desired crop factor in the text box. Close the window by hitting the "X" at the top of the window.



11. Highlight the PowerPoint insert source under the **Sources** pane and you will notice a red outline around the now keyed out PowerPoint. You may now drag this window around and resizing it as you see fit to output on the presents screen as well as recorded output.



12. Get the best possible export settings by click the **Settings** button on the left of the screen and navigate to the **Output Settings** and then the recording tab and copy the settings. Then click **Apply** and **Okay**.



13. Click **Record** and flip through your PowerPoint slides normally!
A wireless keyboard or some other remote device is recommended.

Please note: closing the PowerPoint window will require a new set-up of the **Window Capture**..Highlight the PowerPoint insert source under the **Sources** pane and you will notice a red outline around the now keyed out PowerPoint. You may now drag this window around and resize it as you see fit to output on the **Presents** screen as well as recorded output.