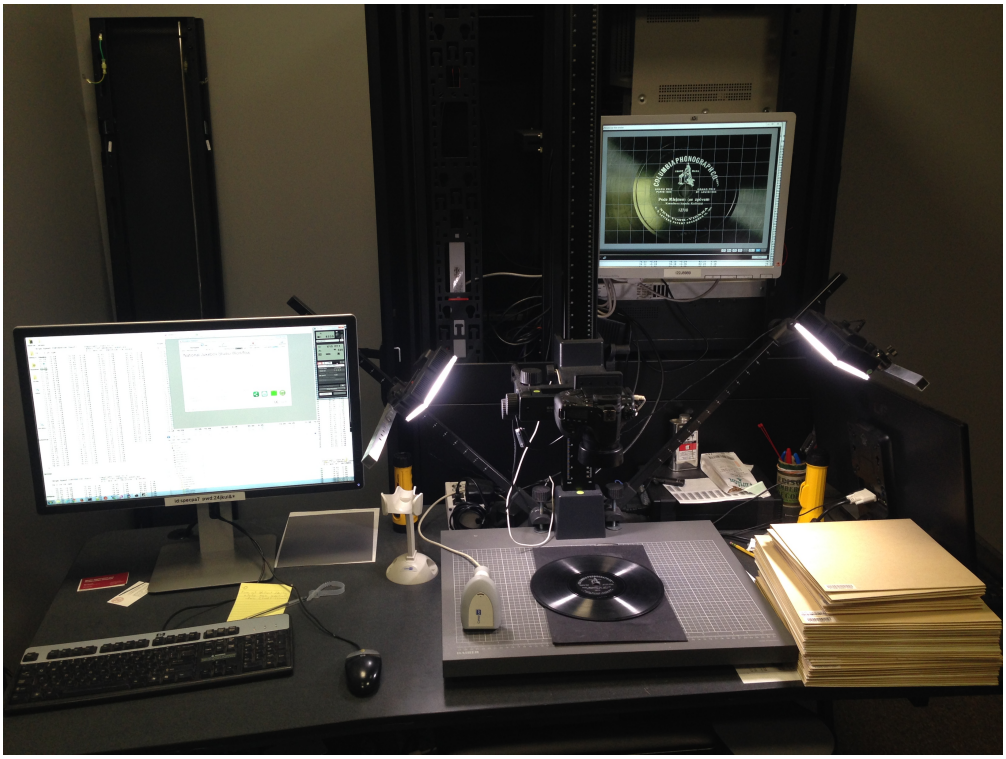
Imaging Discs for the National Jukebox

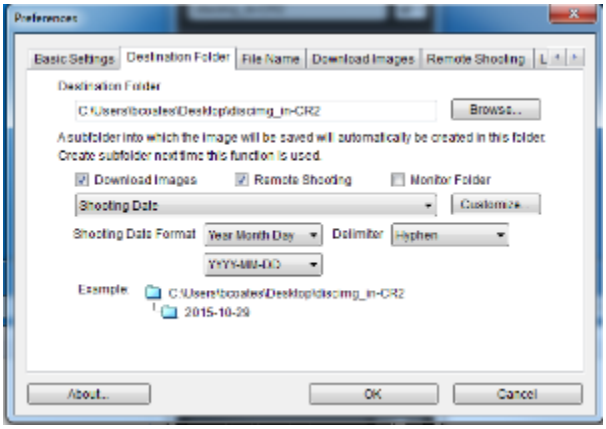
This covers the steps for taking images of disc labels for the National Jukebox. This is the last step in the Jukebox workflow that involves the physical discs.

1. Physical Setup
2. Software Setup
3. Process
4. Post-Processing

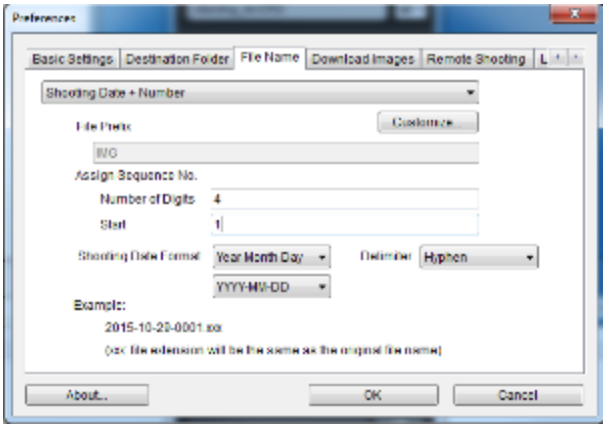
1. Physical Setup
    a. See images:
    b. 
    c. Standing is helpful, there's juuust too much movement to really be effective sitting
    d. It's thus helpful to have a monitor at standing height, which will eventually display the image preview window
    e. Talk with Tom Moon about the alignment of the lights
        i. generally, set it and forget it, but,
        ii. 5600K
        iii. 100% brightness
            1. for labels with lots of white on them this can be reduced to prevent wash-out
    f. Make sure that the camera is level across the X and Y axis
    g. You need a barcode scanner
2. Software setup
    a. FileMaker Pro
        i. Launch FileMaker Pro and sign into nj_workflow
        ii. Scripts - discimg-in
    b. Canon EOS Utility
        i. Launch Canon EOS Utility
        ii. Select Camera Settings/Remote Shooting
        iii. A new window pops up
        iv. Camera Settings

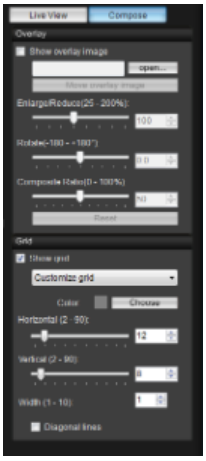
1. 

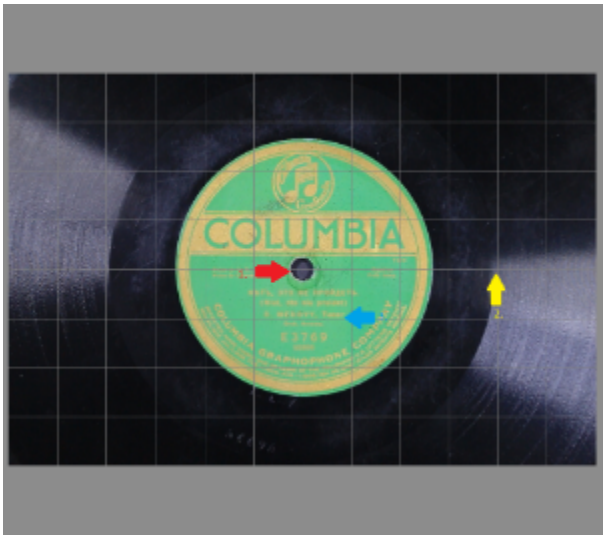
2. Manual Focus
3. 1/15 s shutter speed
4. F8.0
    a. we used to use F7.5
5. ISOAUTO
6. do a custom white balance with the grey card but it's roughly 5600K

v. Next, click "Preferences"
1. In the "Destination Folder" tab
    a. Set the destination folder to the capture directory on a local drive
        i. e.g. R:\78rpm\avlab\national_jukebox\in_process\visual_captures\raw-captures
        ii. Note that this directory must be configured with FileMaker and the cmd scripts as well
    b. verify that the rest of the menu looks like this:
        i. 

2. In the "File Name" tab
    a. make sure that your file names are composed of the shooting date + number
    b. The number of digits is 4
    c. that the Start is 1
    d. and that the date format is the same as above

i. 

3. Click "Live View Shoot"
    a. The way this camera defaults, the image is gonna be upside down in your monitor
        i. to overcome this, press "Auto" on the bottom then unclick it once the image is right-side up
    b. Make the rest of the settings look like:
        i. 

    c. Align the image so that:
        i. the spindle hole is in the very center of the image
        ii. the edges of the run-out are bounded by the square as shown below
        1. 

4. Take a test photo to make sure that it saves to the correct directory with the correct name
    a. e.g.
5. make adjustments as necessary
    a. don't forget to reset the "Start" value in 2.c.v.2.d.i

3. Process
    a. Take a picture
        i. press Space bar while in the EOS Utility window, to avoid touching the camera and altering the focus

    b. Scan a barcode into FileMaker
    c. Repeat
        i. use Alt+Tab to quickly toggle btw open windows
    d. You can find out more about the scripts at the AVLab here
4. Post-Processing
    a. Run Adobe DNG converter
        i. save to new location: R:\78rpm\national_jukebox\in_process\visual-captures\intermediates
    b. open a command prompt
        i. python nj_discimg-out.py