EurekaVision^{TM}
Imaging Session Checklists

BEGINNING OF SESSION CHECKLIST

1. **Check Camera Positioning**

    ☐ **Focal Plane parallel to Scene plane?**

    ☐ **Focal plane normal to optical axis?**

    ☐ **Optical axis centered on focal plane?**

2. **Delete all old Darks and capture new with camera warmed up.**

3. **Verify Auto Dark capture is enabled**

4. **Verify Auto folders set for desired workflow**
    E.G., TIFF and RAW, local / Removable

5. **Verify Data Entry MetaData set and entered**

6. **Save PS datalists as backup/documentation**

7. **Check, and if needed, adjust, light balance and power for desired aperture.**

8. **Establish Focus**

OBJECT POSITIONING CHECKLIST

1. **Correct Backing behind leaf to be imaged**

2. **Identify Manuscript and correct leaf and side**

3. **Position Manuscript on copy stand**
        Line up horizontally

    (IF NEEDED)
    Place booster block underneath to raise vertically

4. **MacBeth Chart fully in view**

5. **Ruler fully in view**

PRE-CAPTURE CHECKLIST, CONDITIONS CHANGED
(Lighting, camera, or scene plane is changed from previous capture)

FOCUSING

1. **Place focusing target at scene plane**

2. **Click on focus button or F7 key.**

3. **Close aperture to obtain good live image.**

4. **Move camera and rough focus at desired dpi.**

5. **Open aperture fully and reduce room lights to obtain good live image.**

6. **Focus**
    (If DPI will not change, focus by moving camera; do not adjust focal plane to lens distance)

7. **Close live focus**

FOCUS CHECK

1. **Disable N-Shot capture**

2. **Open capture aperture fully.**

3. **Check focus by moving camera to either side of nominal focus, capturing and checking**

4. **Close capture aperture to desired aperture**

5. **Enable N-Shot capture**

6. **Enter name for Flat field captures**

7. **If scene-to-focal-plane distance changed by more than a few centimeters, capture new Flats**

PRE-CAPTURE CHECKLIST, CONDITIONS UNCHANGED
(Lighting, camera, and scene plane are not changed from previous capture)

1. **Cube name <ENTER> (Click on data entry box or F1 key)**
2. **Click on focus button or F7 key**
   Adjust light and/or Focus aperture for live image
3. **Position object (click "alt-G" to overlay grid)**
4. **Click on focus (now "stop") button or F7 Key to stop live focus**

METADATA CHECKLIST

1. **Identify Leaf**
2. **Measure/confirm DPI**
3. **Identify position (0 is top, 1 is bottom)**
4. **Identify sequence (repeats are numbered 2,3…)**
5. **Log metadata information on logging computer**
6. **Create file name**
7. **Enter file name in PhotoShoot Cube Name**

IMAGING CHECKLIST

Imaging

1. **Verify "Linear" Set box is checked**

2. **Confirm "Use N-Shot table" is Checked (rainbow in capture button)**

3. **Confirm f#_____**

4. **UV Goggles On**

5. **Position mouse on shutter release button (or use F8 key)**

6. **Lights/Screens Off or covered**

7. **Click Shutter and shoot series**

Post-Imaging

1. **Reconfirm settings**

2. **Turn on and Check Histogram**

3. **Turn off Histogram**

4. **Check composition, focus, and registration**

5. **Check numbers and Renumber if needed**

6. **Check name and rename if needed (folder name and filenames)**

Notes

Flat fields

After moving lights or camera, and before capturing images of objects, capture flat fields. After capturing images of objects, and before moving lights, Capture another set of flat fields.

If lights are inadvertently moved, capture flat fields before capturing any more images.

Focusing tips

1. Angle the focusing target so that the horizontal and vertical lines on the target are diagonal on the sensor.
2. Be sure the aperture is fully open when focusing. (use Focus Aperture Slider to adjust)
3. Observe target surface texture that appears very near correct focus.
4. Always check focus with normal captures at full aperture (use Capture Aperture Slider to adjust), and bracket the nominal focus point to verify focus. If the extension of the bellows (distance from the lens plane to focal plane) is greater than the distance from the lens to the scene plane, adjust the rear standard to bracket the focus. Otherwise, use the column motor to drive the camera up and down to bracket.
5. Capture target images at f5.6, f8, and f11. If the focus at the center of the scene gets sharper when you stop down, you are not in focus.