Helicon Capture Sequence

Helicon Remote controls the camera in live-view mode from the computer and shoots the subject using the focus stacking technique.

- Set the camera to aperture priority, choose an aperture setting, however don't use the smallest aperture because of the possibility of diffraction of the light entering the lens. Diffraction is an optical effect which limits the total resolution of your photography — no matter how many megapixels your camera may have. It happens because light begins to disperse or "diffract" when passing through a small opening (such as your camera's aperture). N.B. all of the camera settings can be made from **Helicon Remote.**
- Set the camera to shoot in Raw or JPEG, when shooting Raw images **Helicon Focus** has the ability in its settings to output the image as a Raw file in Adobe DNG format. Adobe DNG converter is used in conjunction with the programme to output DNG files.
- Set your lens to Auto Focus (AF) mode.
- The first step consists of focusing on the area of the object closest to the lens and locking it.
- This was achieved by clicking autofocus in the top panel of **Helicon Remote** then clicking on the nearest focusing area in the live view window.
- The focus is then locked by clicking the "A symbol" resulting in a small yellow lock in the Focus Bracketing panel of the program.
- Manually focus using the controls in the programme for "B", the point of the object furthest from the lens.
- The adjustment can be conveniently fine-tuned using the arrows in the bracketing focus panel.
- The focus can then be checked using the preview button, which opens up a high resolution preview of the image allowing precise control of the focus.
- The focus bracketing sequence, is automatically captured by the program after pressing the "start shooting" key that triggers the capture. The software controls the focusing ring on the camera.
- Note that the software also allows for control of the number of intervals in the bracketing sequence.
- After completion of the shooting, the software offers the option to directly open the bracketed sequence in **Helicon Focus** to render the final stacked image.

The **Shots** parameter shows how many shots will be taken. If you change this parameter and both endpoints are defined, the program will recalculate the interval between shots.

The **Direction** parameter determines whether the focal plane will move towards camera or infinity. If both endpoints are set, this option is not important, but you should check it if you have only set one of the focusing points.

The **Interval** parameter defines the movement of the lens between two adjacent shots. The distance is measured in steps of the lens' motor (focusing steps) and is roughly equivalent to the rotation of the focusing ring by a specific angle. Please note that both this parameter and the depth of field (measured in millimetres) are nonlinear functions. As a result, the distance between shots is roughly the same for all of the lens' focus distances.

Helicon Focus offers three different methods of rendering to process the source files and create the output image.

- According to the user's manual, method A - weighted average - is better at producing smooth transitions and preserving colours.
- Method B - depth map - works best for continuous surfaces.
- Method C - pyramid - is good for intersecting objects and deep stacks.

It's a good idea to run the three of them and pick the best output image for final editing in your photo editing software.