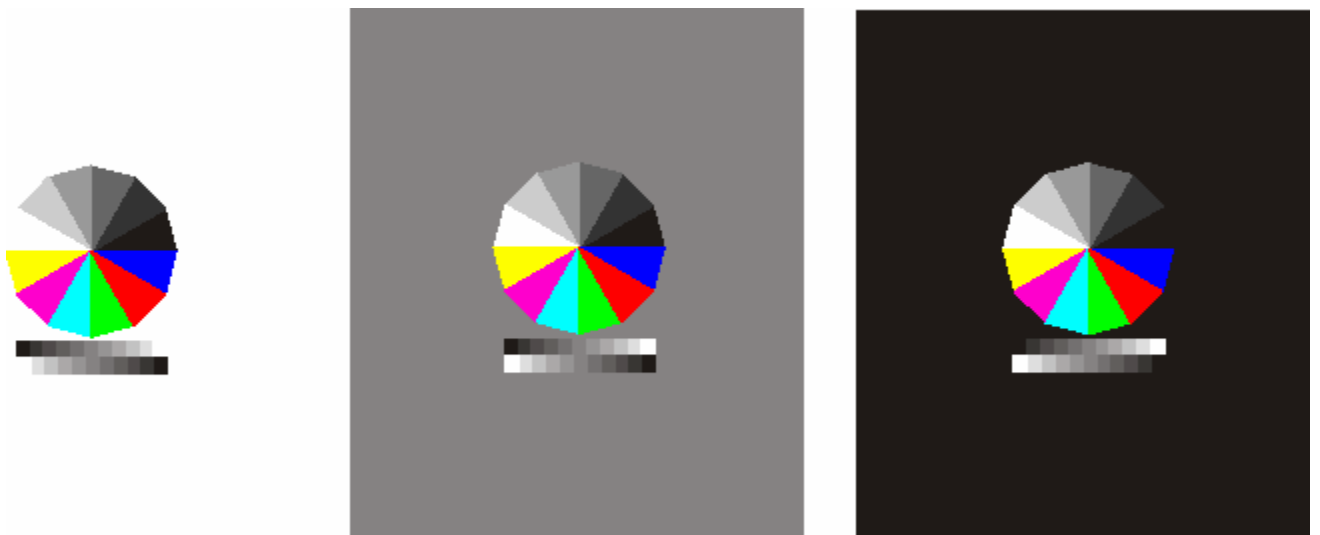


## Digital Test Target

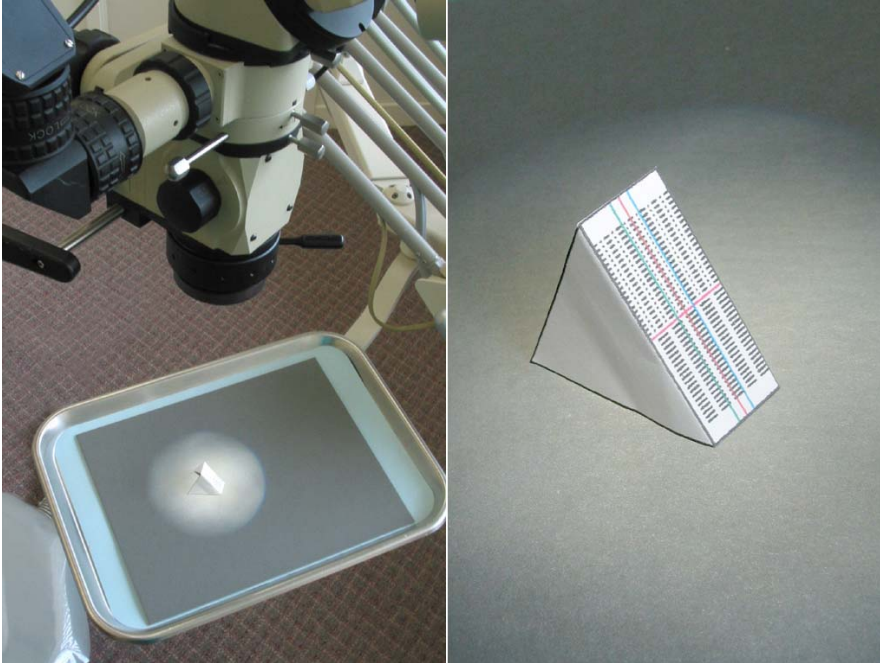
Is designed to help us see the effects of some of camera adjustments as well as help in camera setup. It consists of four different sections that are designed to accomplish different task.

**Test targets** As a standardized target, they are useful to show the following effects

- 1) **Affect of exposure compensation.** Use the grey background target. Watch the black and white ends of the grey scale and see how the last two or three blocks start to blend as the image is under and over exposed. Compare this to the histograms of the image. This will allow you to see the subtle changes in the images as the exposure changes.
- 2) **Affect of light and dark color background on exposure and the need for exposure compensation vs background intensity.** Use all three and compare the results. You'll be surprised how well the matrix metering setting does.
- 3) **Affect of "Image adjustment" settings in camera.** Less and more contrast should show up in the grey scales ends. Lighten image/ darken image will change the value of the mid tones without changing the end points.
- 4) **Affect of "saturation control"** Changing the saturation control will change the intensity of the colors on the target.



**Depth of Field Target** should be cut out and the tabs folded 90 degree. You'll end up with an angled target that can sit on a flat surface. Focus on the center dot and take a picture. This is useful in three areas.

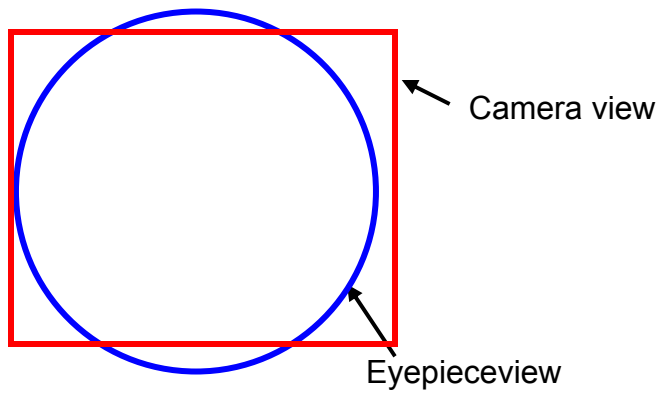


**Testing focus consistency** – take images of a number of tries at focusing and see how consistent you are. If your focus skills are good you should be able to hit the focus most of the time. If not, more practice will improve your results.

**Fine tuning parfocals** – because of minor manufacturing tolerances and the difficulty of getting really accurate parfocals yours may be slightly off. This will show up in the images of the test target by the center of the focus being consistently off the center. Adjusting the diopter setting on the eyepieces will raise or lower this setting. Both lens should be adjusted the same amount in the same direction.

**Determining depth of field** – it is a useful exercise to see how much depth of field you actually have at different magnification and at different  $f$  stops.

**Field of View Target** - are a way of mapping the field of the scope vs the field of the camera. The way I recommend it be used is to focus the scope on the middle of the field and then mark the outer boundaries of the field. Without changing anything, look at the viewfinder and mark the corners of the camera field. Connect the dots and you'll have a graph of the two fields. Memorize it and you won't need to look at the LCD to determine the camera view. This relationship can be changed with prosumer cameras by varying the telephoto setting. With a SLR cameras the relationship is fixed. Since SLR cameras do not have a live feed on the LCD screen it is necessary to take an image and map the outline from that image.



**Focus Target** is basically a target that can be used to practice focusing.

Note; The companion page "Digital Target" should be printed out on the highest quality inkjet paper at a printer setting appropriate to the paper. It should not be printed on photo paper since the surface is too glossy which results inaccurate exposures.