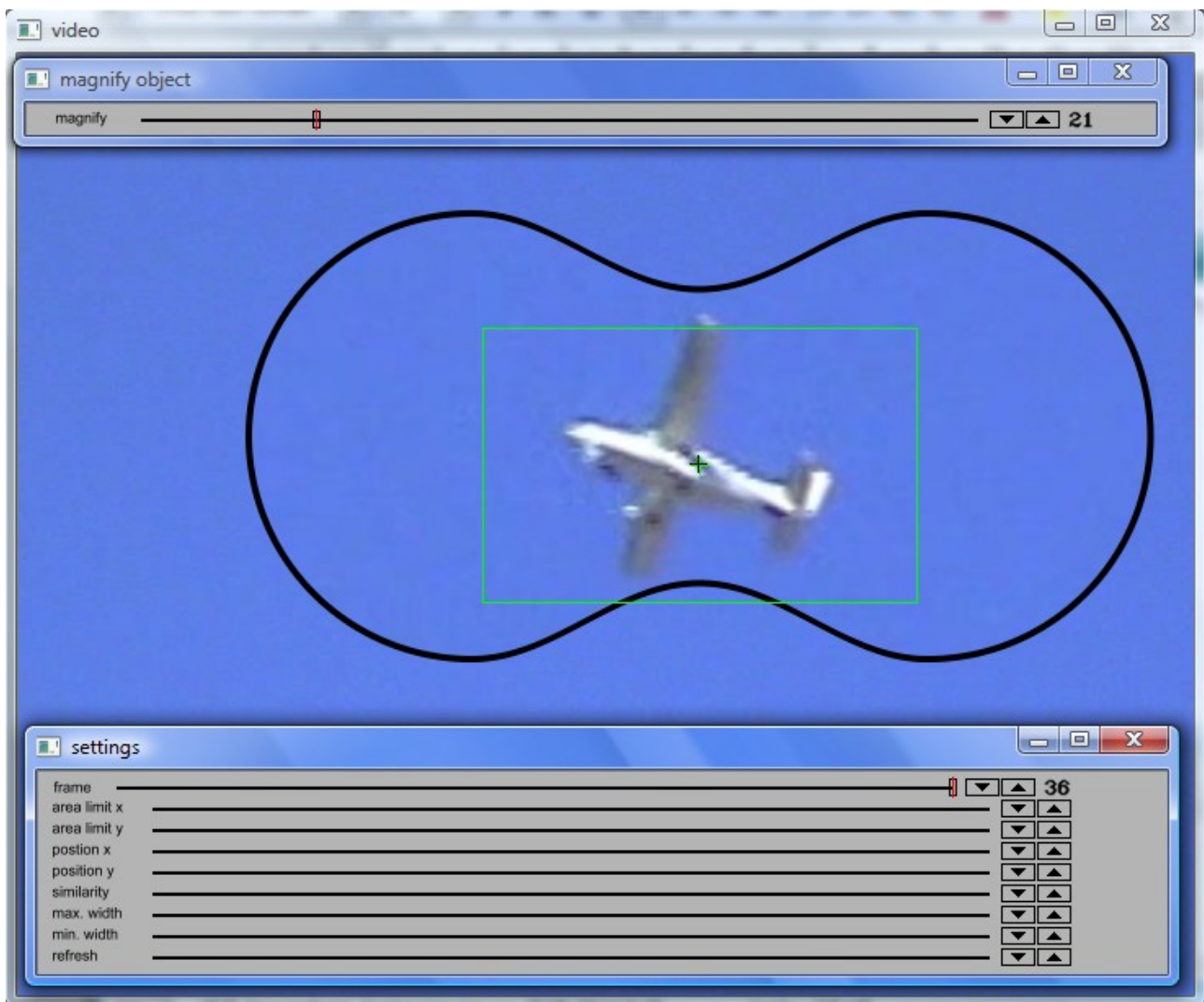


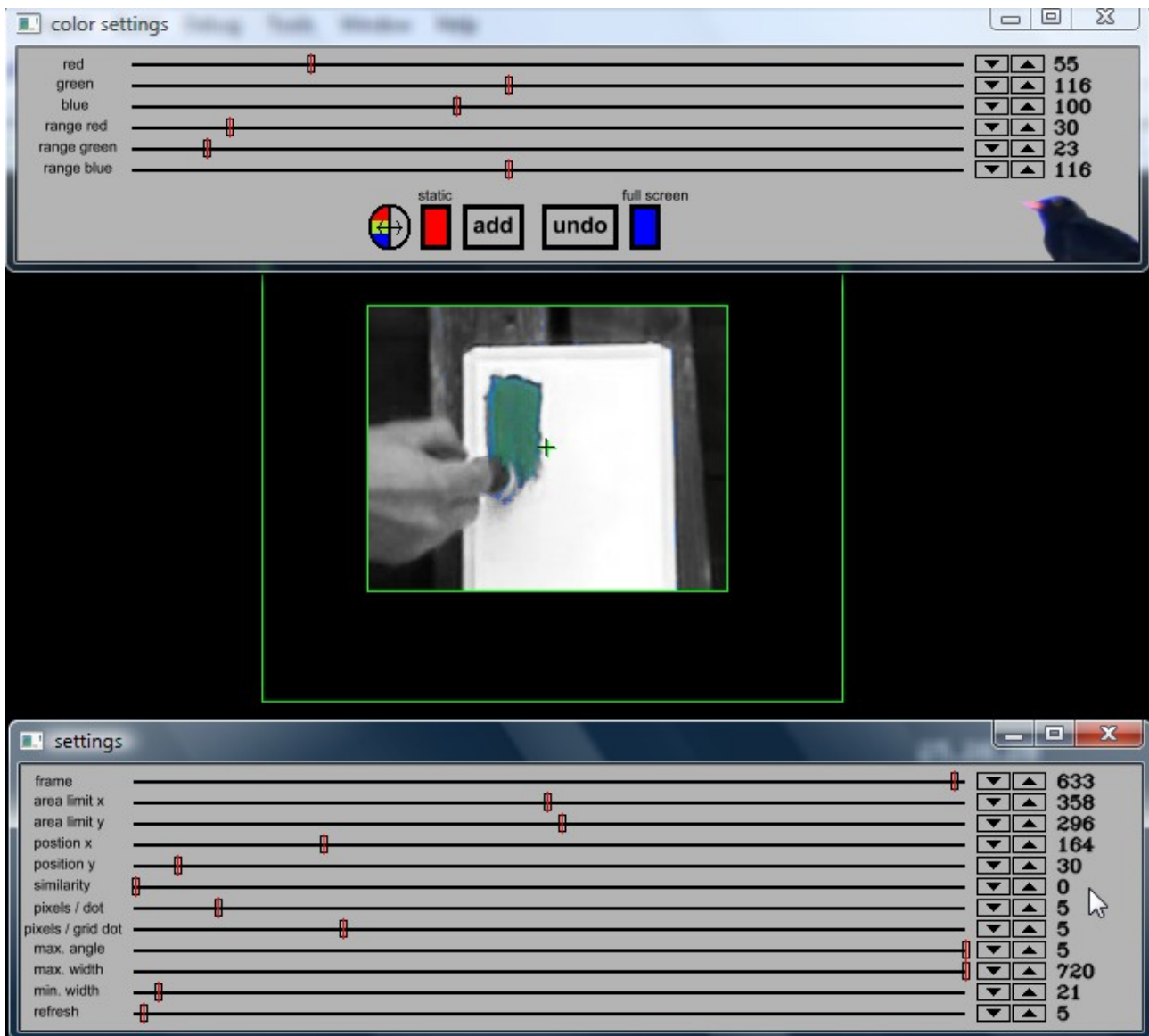
Special Effects

binoculars:



The **binoculars** can be used to magnify a specific area in the frame and show the magnification in a field glasses view. There are three different views available: **black rim** (as shown above), **no rim** (the area is magnified but there's no rim) and default view (which is black background). In Template Mode the view can be set to '**static view**'. Otherwise it will follow the detected object. By choosing the '**detect object size**' option the field glasses will also change size according to the size change of the object. The magnification can be set as usual.

emphasize:



the **emphasize** option serves to emphasize one or several user-defined colors in the frame. The selected colors are shown in color while the rest of the frame is shown in grayscale. You pick a color by the combination '**Right mouse click + CTRL**'. You can also choose it manually with the sliders. Set the different **range** sliders to the desired value. If you are satisfied click the '**add**' button (don't forget it, it's important to do that). Once you have added a color you can also undo your selection but always only the last selected color. By clicking the button '**static**' you indicate that you do not want the selected area to be moved along the video. Otherwise it will follow the object. The '**full screen**' button means that if you click it the color filter will be applied to the whole frame. The *symbol* to the left of the 'static' button serves to *invert* the emphasized colors, i.e. every color except for the selected ones will be emphasized. You will hear a bird sound when clicking any of those buttons which lets you know that the click was a success. The 'emphasize' option only works in Template Mode 2.

colorize:



in order to **colorize** a video you first need to choose the **shade of gray** you would like to assume a certain color. You do this by moving the mouse pointer into the desired location of the frame with its top right above the shade of gray you would like to replace and then **Right click + CTRL**. The respective value will be transferred to the slider in the colorize settings window. Next you pick the color. This can be done manually with the sliders or better by using the combination 'Right click + CTRL' again inside the *colorize settings* window. For this there are available pre-selected colors or you can pick one from any of the 255 color slices. Color slice 0 is the one shown above (left to the pre-selected colors). To choose another slice you use the respective slider '**color slice**'. In order for the color to become visible in the frame you have to set its **range** different from zero. By clicking the '**add**' button you add it to the list of colors. By clicking '**undo**' you remove it again. Unlike as in '*emphasize*' mode here you can undo every color. The buttons '**static**' and '**full screen**' have the

same meanings as in that mode. You will notice an additional slider called '**tolerance**'. It is usually set to zero in order to make sure that no already existing colors in the frame are overwritten. However, you may need to adjust it especially if you apply the colorize method several times to a video, i.e. if you run Centertracker with 'colorize' enabled several times with the same video. The reason for this is video compression. Although there should be no colors in areas where they are not supposed to be compression will lead to slight mixing of gray tones and colors especially on bordering areas of color and grayscale. By using the tolerance slider you can overwrite those 'wannabe' color pixels with the selected color. Another purpose of using the tolerance slider may be that you want to replace a pre-existing color with another one. In that case it may come in handy as well.

To increase the variety of colors for the same shade of gray you can try to run CT a couple of times with the same video always choosing a different area to follow (e.g. first you follow the lips, then the eyes etc). As quality is reduced with every run (if compression is used) it may be better to save the video with no compression. However, this is only advisable if the video is really short (not much longer than a minute or so), otherwise the files get too big or not even saved at all due to the 2 GB limit imposed by OpenCV.

'Colorize' also only works with Template Mode 2.