

# Achieving Optimal Image Quality with the VAL Zoom Camera

By following this set of procedural steps you will be able to consistently obtain high quality images from your VAL Cam 9000-628 system.

## Fundamentals of High Quality Image Capture

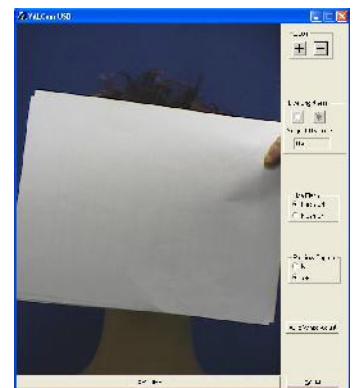
1. Set the Auto White. This will optimize color balance when not using the flash.
2. Zoom in for optimal capture quality. This is a necessary step to achieve high quality results.
3. Optimize Live Brightness. This step is necessary when not using the flash; also this step will optimize the live image preview.
4. Optimize flash intensity level. This step is necessary when first setting up the camera to achieve high quality flash captures. If this adjustment is not set properly flash captures will either be too bright or too dark.
5. Optimize color adjustments.

### Step 0: Installation

- Make sure that your VALCam has been installed and is working as per the instruction manual.
- Standalone camera application should be available at Start->Programs->VALCam USB
- If installation is not working consult the instruction manual or call (800-331-0547) for tech support

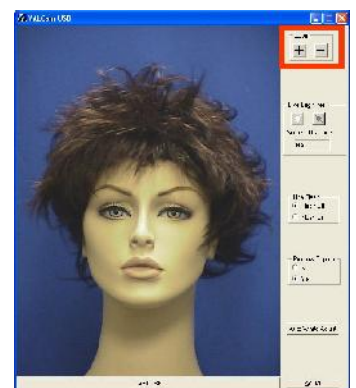
### Step 1: Setting the Auto White Balance

- To set the Accurate Auto White make sure you have a white or grey object, like a piece of paper, handy
- Locate the “Auto White” button on the lower right side of the application
- Click the “Auto White” button and a dialog box with instructions will appear
- Now place the white object in front of the camera. Preferably the white object should be located where the subject will be for your captures, but holding the object in front of the camera also works as long as the object takes up about 1/2 of the capture screen
- While holding the white object in front of the camera click the “OK” button in the dialog box and wait until you hear a beep
- The camera white balance is now accurately set and locked
- Verify that the color looks correct and natural, if not repeat step 2 making sure to hold the white object close enough to the camera to take up 1/2 or more of the screen
- Note this adjustment only affects the live preview and non-flash captures. This control has no effect on Flash Captures



### Step 2: Setting the Zoom control for optimal print quality

- To achieve the highest image quality, it's crucial that the camera is zoomed in for a tight head and shoulders shot
- Being zoomed out wide and cropping in software will result in a good quality capture on the screen, but a poor quality printed image
- The Zoom function of the camera is controlled by the zoom buttons located on the upper right side of the application
- You can also use the “+” and “-” keys next to the number pad on your keyboard to control the zoom function of the camera instead of using the mouse



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- Holding down the “Ctrl” and “Shift” keys will increase or decrease the speed at which the camera zooms for faster and more precise adjustments
- Make sure you are zoomed in tightly on your subject to provide the best capture for high quality prints



## Taking a Non-Flash Capture

Your VALCam has the ability to take captures without the use of the flash. In some settings and light stable environments using the flash to get a quality capture may not be necessary. Adjusting the Brightness settings for a non-flash capture is easy as the alterations can be seen in the Live window instantly.

### Set the Live Brightness Settings

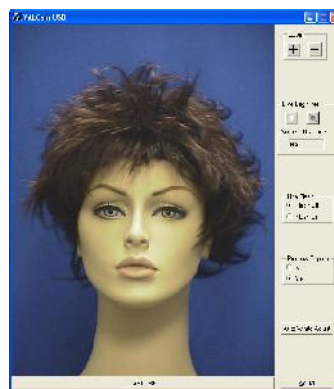
- Verify that the flash is turned off in the application
- Adjust the “Brighter” and “Darker” buttons for optimal image illumination
- This should be done with a subject in the position used to take captures
- If the “Brighter” and “Darker” buttons are not working verify that the “Flash Off” radio button is selected in the Use Flash box



Too Bright



Set Correctly



Too Dark



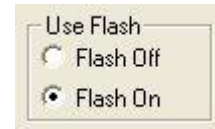
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## Taking a Flash Capture

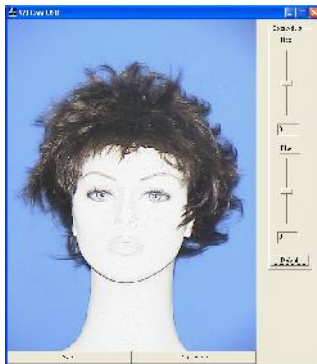
The VALCam also has the ability to take captures with the use of a photo-flash. Using the flash enables you to take consistent captures in varying light conditions, even in a dark room.

### Setting up the Flash

- The flash settings must be adjusted the first time that flash is used in a new environment, generally this feature will not need to be changed once set
- Click the Flash On radio button in the Use Flash box of the application
- Position a subject in the location and position where you want to take captures
- Make sure that the subject is framed correctly in a tight head & shoulders shot like explained in step 2
- Estimate the distance between the subject and the camera
- Use the “Brighter” and “Darker” buttons in the Flash Brightness box to set the distance
- Click the “Capture” button
- The captured image will probably be either too bright or too dark



Flash Too Bright



Flash Set Correctly



Flash Too Dark



- Click the “Don't Save” button
- Use the Flash Brightness buttons to adjust the intensity of the flash, if the image is too dark click the “Brighter” button and vice-versa. Then click the “Capture” button again
- Note: You should leave at least 7 seconds in between taking flash captures for the flash to fully recharge
- Repeat until flash brightness is optimized
- Once the flash is set no adjustments are required between uses as the settings are saved and stored locally

## Fine Tuning the Image

Once you have set the White Balance, adjusting the color should not be necessary. However if you find that your image is slightly off color you can adjust it. This allows for optimal color balance for even the most discerning eye. Once you have everything set and fine tuned for optimal quality you can lock the settings to ensure consistency between operators.

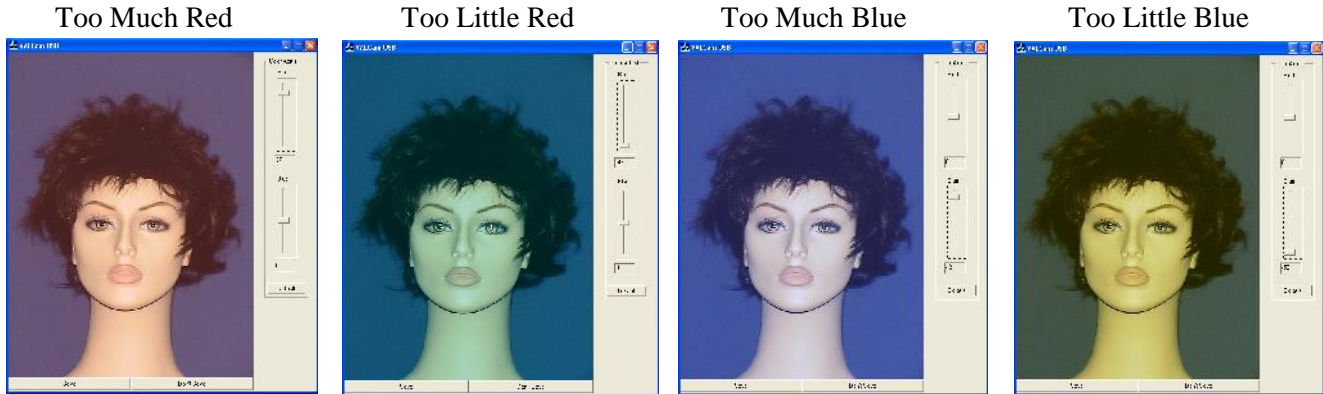
### Color Adjustment

- Quick color adjustments are available to easily control the color balance of the captured image
- After the capture, the image is displayed with the “Save” and “Don't Save” buttons
- A Red and Blue sliders appears next to the captured image



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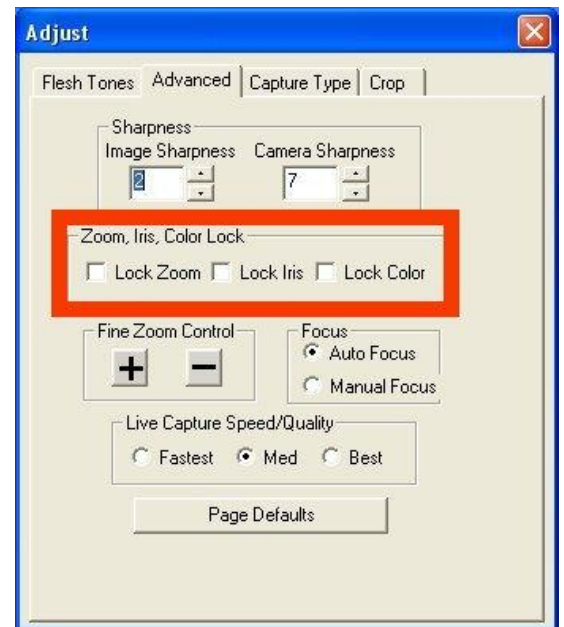
- To adjust the image increase the “Red” slider until the image appears too Red. Then decrease “Red” until the image appears to be lacking in Red, then place the slider in the middle of that range
- Repeat this procedure with the “Blue” slider
- Iterate this procedure between both color bars until you have optimized the image



- Note: Yellow skin tones indicates too little blue, so add blue to correct
- When finished, click the “Save” button
- Color adjustment is complete and the settings will be saved and remembered in between captures and sessions

## Locking Settings

- The Flash, Zoom, and Color settings can be locked from the “Adjust” menu. This can be useful to assure that operators will not change the settings after they have been optimized
- Click the “Adjust” button
- Once the Adjust box pop up appears click on the “Advance” tab
- Locate the “Lock Zoom”, “Lock Iris”, and “Lock Color” check boxes
- If desired, a password can be set in the registry to force a security check when trying to open the “Adjust” dialog box



In addition to the procedures noted in this document there are additional advanced settings available please consult your manual or call Video Associates Labs, Inc. (800-331-0547) for further technical help.