

VALCam Pro with Lamp

VALCam Zoom with Lamp

Introduction

Thank you for purchasing the **VALCam ID**, the first image acquisition system designed specifically for photo-ID and visual database applications. All camera controls (pan, tilt, zoom and exposure level) are available from the mouse or keyboard. Manual positioning of the camera is eliminated for increased operator efficiency.

In addition to hands off control, the **VALCam ID** uses **Video Associates Lab's CamLite** technology. A high intensity light is automatically fired with each capture. The **VALCam** will automatically adjust for perfect captures. Software adjustments are provided for exposure, color intensity and flesh tone control. High quality captures with perfect skin tones can be obtained effortlessly in any environment, even dark rooms!



Video Associates Labs, Inc.
11525A Stonehollow Dr., Suite 130
Austin, TX 78758
1-800-331-0547
www.VAL.com

Features Include:

- **Mouse control of pan, tilt, zoom and exposure in Pan/Tilt/Zoom camera and zoom in the Zoom camera.**
- **Uses optical pan, tilt, zoom for highest resolution.**
- **Adjustable external light exposure via software control. Perfect captures, even in dark rooms**
- **Hassle free integration of strobe lamp**
- **Includes 32 Bit Twain Driver. Optional Software Developers Kit available.**
- **Will work in all major Windows photo ID and imaging applications.**
- **High-resolution single chip CCD array (796x494).**
- **Auto Focus, S-video output.**
- **Available in both NTSC and PAL video standards.**
- **Kits include Pan/Tilt/Zoom or Zoom only camera, VideoVue PCI capture card, Flash, software drivers and cables.**

Quick start instructions for hardware and software installation are provided. A trouble-shooting guide will help resolve any installation and operational problems. The **Imaging Hints and Tips** section will help the end user achieve high quality captures.

If technical support is needed please contact:

Video Associates Labs
Phone: 800-331-0547
Fax: 512-491-7619
Email: support@val.com

Parts List for available VALCam products

6500-622 VALCam Zoom with CamLite

High resolution S-video zoom camera
VideoVue PCI capture card with software
CamLite external power transformer
Lamp with trigger cable
Multi-cable
9 pin male to 9 pin female D-sub cable (RS 232)
S-video cable
9 pin to 25 pin adapter
110v power cord
Instruction Manual

6500-624 VALCam Pro with CamLite

High resolution S-video camera with pan/tilt/zoom
VideoVue PCI capture card with software
CamLite external power transformer
Lamp with trigger cable
Multi-cable
9 pin male to 9 pin female D-sub cable (RS 232)
S-video cable
9 pin to 25 pin adapter
110v power cord
Universal mounting bracket for lamp
Instruction Manual

6500-628 VALCam Zoom with Flash

High resolution S-video zoom camera
VideoVue PCI capture card
Software
Flash internal card
Flash jumper wire
Flash with trigger cable
Multi-cable
9 pin to 25 pin adapter
Instruction Manual

6500-630 VALCam Pro with Flash

High resolution S-video camera with pan/tilt/zoom
VideoVue PCI capture card with software
Flash internal card
Flash jumper wire
Flash with trigger cable
Multi-cable
9 pin to 25 pin adapter
Universal mounting bracket for lamp
Instruction Manual

6500-686 VALCam Laptop Pro with CamLite

High resolution S-video camera with pan/tilt/zoom
VideoVue PCMCIA capture card with software
S-video to PCMCIA cable
CamLite external power transformer
Lamp with trigger cable
9 pin male to 9 pin female D-sub cable (RS 232)
Multi-cable
9 pin to 25 pin adapter
110v power cord
Universal mounting bracket for lamp
Instruction Manual

6500-688 VALCam Laptop Zoom with CamLite

High resolution S-video zoom camera
VideoVue PCMCIA capture card with software
S-video to PCMCIA cable
CamLite external power transformer
Lamp with trigger cable
9 pin male to 9 pin female D-sub cable (RS 232)
Multi-cable
9 pin to 25 pin adapter
110v power cord
Instruction Manual

Hardware installation

NOTE: These instructions cover both the Pan/Tilt/Zoom and Zoom only camera. Follow the directions that are appropriate for your camera.

NOTE: All cable connectors and matching receptacles have been color coded for easy installation

1. Install the **VideoVue PCI** capture card in an available **PCI** slot. You must use the **VideoVue PCI** image capture card that was shipped with the **VALCam ID** system. Secure the back plate of the card with a screw to the computer chassis.
2. Locate the **Camlite** external box.
 - a. Attach the black Svideo cable with the **gray** color code to the Svideo receptacle on the **Camlite** external box.
 - b. Attach the other end of the Svideo cable to the **gray** receptacle on the PCI card in the computer. Verify that the cable connector is oriented properly before inserting. **DO NOT FORCE**
 - c. Connect the male end of the 9 pin to 9 pin cable to the matching RS 232 receptacle on the black box.
 - d. Connect the female end of this cable to an available Com port on your computer.
 - e. Attach the AC power cable to the **Camlite** external box.
 - f. Locate the multi cable camera wiring harness and attach the 25 pin multi connector to the matching receptacle on the **Camlite** black box.

3. Pan/Tilt/Zoom Camera connections

- a. Attach the **flash-mounting bracket** to the bottom of the camera
- b. Attach your tripod-mounting block to the bottom of the **flash-mounting bracket**.
- c. Attach the complete unit to the tripod.
- d. Attach the **Lamp** to the hot shoe connector on the **flash-mounting bracket**.
- e. Locate the camera **multi-cable** camera wiring harness. Connect the **brown** S-video connector on the **multi-cable** to the matching S-video connector on the Pan/Tilt **camera**. Verify the cable connector is properly oriented and gently insert connector. **DO NOT FORCE THE CONNECTION.**
- f. Connect the **red** Visca connector to the matching **red** Visca connector on the **Pro camera**.
- g. Connect the **yellow** DC connector on the **multi-cable** to the matching DC connector on the **Pro camera**.
- h. Connect the white **flash unit** cable connector to the matching connector on the **multi-cable**.

4. Zoom camera connections

- a. Attach your tripod mounting block to the bottom of the **camera** and attach to tripod
- b. Attach the **flash unit** to the hot shoe connector on the top of the **Zoom camera**.
- c. Attach the white connector on the **Lamp unit** to the matching connector on the **Zoom camera**.
- d. Locate the **multi-cable** and attach the **brown/black** 25 pin D-sub connector to the matching connector on the Zoom camera.

5. Attach the AC power cable for the external box to a power source. Verify that the power switch on the **Pan/Tilt** camera is in the on position. Verify that the power indicators on the **external box** and the **Pan/Tilt** and **Zoom** only camera are illuminated

The **VALCam ID** hardware is now installed.

Software Installation

Win 98/95/ME/2000

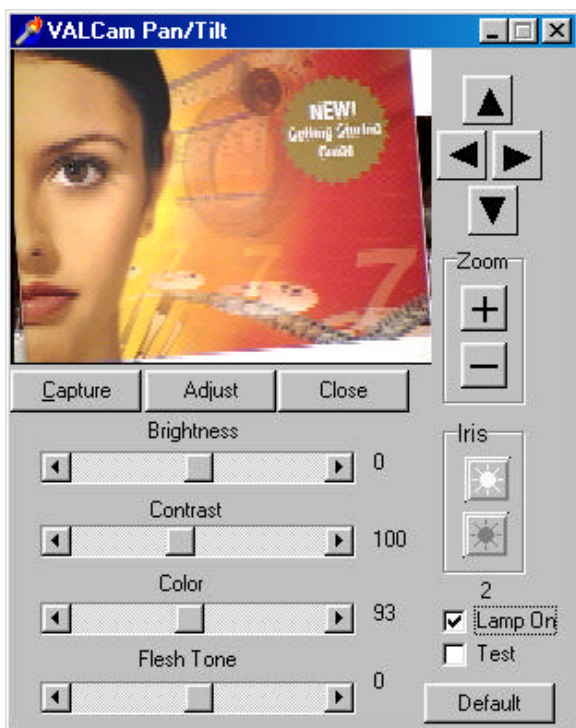
1. Before turning on the computer, verify that all hardware (camera, cables and capture card) has been installed according to the directions.
2. Locate the installation diskette for your operating system. Start the computer.
3. **Immediately after booting, a dialog box indicates that new hardware has been found.** Insert the installation diskette for your operating system in the floppy drive and select the **Next** button. Verify that the **A: drive** is in the search path and follow the prompts
4. Run the **Setup***.exe Program** on the installation diskette.
5. **Reboot the computer.**

NT 4.0

1. Before turning on the computer, verify that all hardware (camera, cables and capture card) has been installed according to the directions
2. Start the computer
3. Insert the installation diskette for your operating system in the floppy drive. Run **Setup.exe**.
4. **Reboot the computer.**





Basic Operation

1. Before proceeding, verify that all hardware is properly connected. Verify that the **Pan/Tilt/Zoom** or **Zoom camera** is powered on. Note the power **LED** located in the front of the camera. The **Zoom camera** has a power **LED** on the back of the unit. Verify that the **flash unit** is switched on and the charge indicator **LED** is illuminated.
2. Confirm that the display settings of your computer are set to a high color mode (16,24 or 32 bit).
3. Click on **START->PROGRAMS->VALCam Lamp** and start the application.
4. The **VALCAM ID** capture control box will appear. **If you receive an error message or the capture control box does not appear displaying live video, consult the trouble-shooting guide.**



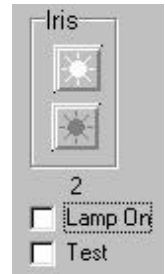
5. Camera motion controls

- a. Place the mouse over the **+** **zoom in** button and hold down the left mouse button. The camera will zoom in. When the mouse button is released, zooming will stop. The **-** **zoom out** button works the same way to zoom out.

- b. (Not functional on **Zoom** only cameras.) Place the mouse over the  **tilt up** button and hold down the left mouse button. The camera will tilt up. When the mouse button is released, camera movement will stop. The  **tilt down** button works the same way to tilt down.
- c. (Not functional on **Zoom** only cameras.) Place the mouse over the  **pan left** button and hold down the left mouse button. The camera will pan left (from a perspective facing the back of the camera). The  **pan right** button works the same way to pan right.

6. Adjust Live Preview Parameters

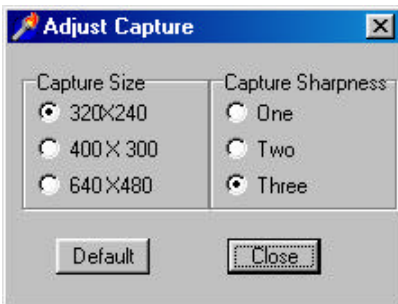
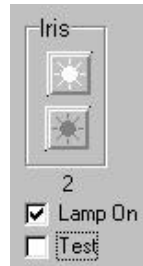
- a. Click the **Lamp On** check box so that the **C** does **not** appear.
- b. Click the **Default** button on the main dialog box to set all controls to the default positions.
- c. Adjust the **Iris** control buttons for proper image illumination.
- d. After the **Iris** control buttons have been set, adjust the **Color, Flesh Tone, Brightness, and Contrast** scroll controls to optimize the live image.



Capturing Images

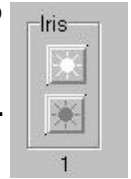
Testing Image Capture with the Lamp

1. Select the **Lamp On** check box.
2. Frame the subject with the camera motion controls. Adjust the **Zoom** control for a close up shot. **It is always recommended to zoom in as tight as your image composition will allow for the highest image quality.**
3. Click the **Adjust** button on the **VALCam** window.

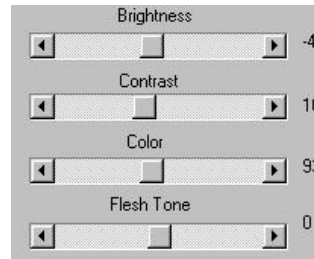


The Adjust Dialog Box will open and the Lamp will come on.

4. Click the **Default** button to reset the scroll controls to their default values. Adjust the **Iris** controls for the proper illumination. **NOTE The IRIS controls should always be adjusted before the scroll bar controls.** **Capture Size** and **Capture Sharpens** should be set for best use in your application. The default capture size is 400 X300 and default sharpness value is 2.



5. After the Iris control have been set, adjust the scroll bar controls to optimize the image. Usually only the **Color** and **Flesh-Tone** controls will need to be changed.

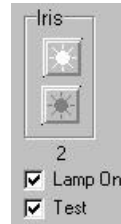


NOTE: Its recommended to leave the BRIGHTNESS and CONTRAST controls at their default setting of 0 and 100 when using the LAMP

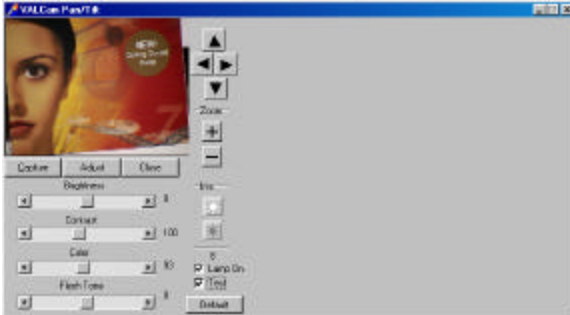
NOTE: The Lamp will only stay on for about 40 seconds. If the Lamp shuts down close the dialog box and click the ADJUST button and the light will come back on.

6. Click the Close button and the Adjust dialog will shut down.

- Click the **Test** check box to enable check box. The **VALCam** window expand to accommodate the test capture.

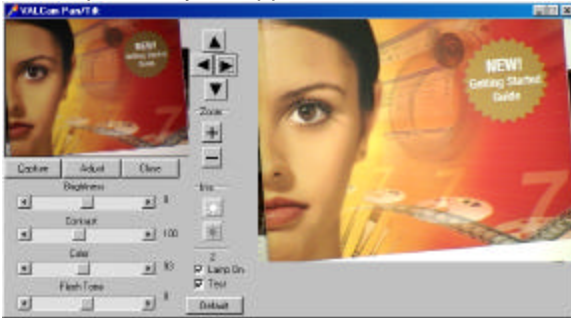


the will



NOTE: When the LAMP ON check box is enabled, the parameter changes take place only when the image is captured or the ADJUST DIALOG box is displayed. To adjust the live preview, uncheck the LAMP ON dialog box and change the IRIS, BRIGHTNESS, CONTRAST, COLOR, and FLESH TONE controls.

8. Click the **Capture** button. The **Lamp** will come on and the capture will appear in the **VALCam** window. This image will match the captures that will be acquired in your application.



Note: For best result when using the Flash, leave the Brightness and Contrast scroll controls at their default settings of 0 and 100.

9. To recalibrate the settings at anytime, click the **Adjust** button. The Lamp will come on and all controls are available.

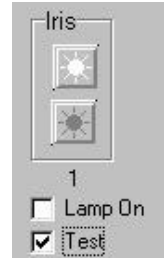
NOTE: Capture Size only applies when the Test check box is not enabled. When the Test check box is enabled the image is always captured at 400 X 300 and displayed in the VALCam window.

Testing Image Capture Without Flash

1. Uncheck the **Lamp On** check box
2. Adjust the Iris buttons for proper illumination.
3. Adjust the **Brightness, Contrast, Color** and **Flesh tone** scroll controls for proper image quality.

Note: All image parameter changes are immediately viewable in the live display window.

4. Click the **Capture** button to acquire an image.



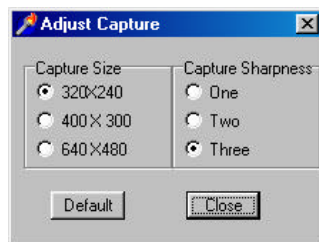
Using the VALCam with Photo-ID applications

Twain drivers for the **VALCam** are loaded during the software installation procedure. Using your application, select the **VALCam** system as your Twain source to acquire.

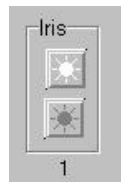
Alternatively you can run the **VALCam** executable as a standalone application and capture images directly to the Window's clipboard. You can then paste these images into any applications that will support the Window's clipboard.

Quick tips for quality captures

1. Adjust camera controls to frame subject. **Zoom** in as tight as your image composition will allow.
2. Enable the **Lamp On** check box
3. Click the **Adjust** button and the Lamp will come on



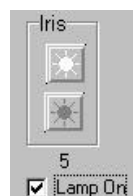
- a. Click the **Default** button to set the video parameters to their default values
- b. Adjust the **Iris** buttons to set proper exposure level
- c. After the **Iris** controls have been set, adjust the **Color** and **Flesh Tone** scroll controls to optimize the image. It's recommended that the **Brightness** and **Contrast** scroll controls stay set to their default value.



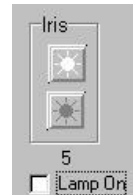
4. Click the Close button to exit the **Adjust** dialog box. When the capture button is clicked, the acquired image will match these settings. To readjust click the Adjust button again.

NOTE: When capturing images to your application be sure the TEST check box is not enabled. The TEST check box should only be enabled when you want to preview your captures.

Note: When the Lamp On check box is enabled, parameter changes are not reflected in the live preview window, but when the next capture is acquired.



Note: To change the live display settings turn the Lamp on check off and adjust the scroll buttons. Be sure to re enable the Lamp On check box to use the lamp when capturing images



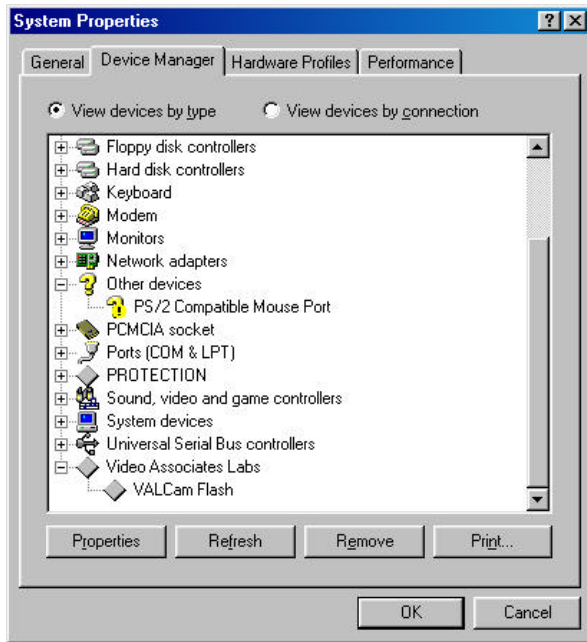
Trouble Shooting

1. I receive the message “**Camera Not Found**” when trying to start the application.
 - a. Verify that all cable and camera connections conform to the instructions in the **Hardware installation** section
 - b. Verify that the software has been installed according to directions
 - c. Verify that the external power box and camera have their power led illuminated
 - d. Verify that the Com port is enabled in the BIOS and that another application is not using the Com port. Some applications can grab the COM port during boot up. In this case an available COM port may not be available for the VALCam application. In most cases these application can be disabled from starting during boot up releasing the Com port for the VALCam.

2. I receive a slew of error messages when trying to start the application.

In Win95/Win98/ME/2000 check Device Manager to verify that the hardware is properly installed. There should be an entry for Video Associates Labs with a sub-listing for VALCam Flash. Verify that there are no error indicators next to the VALCam entry.

a. .



3. The application runs fine when started on its own, but I cannot make it run from my application.
 - a. Verify that you have selected the VALCam as the twain source for your application. Consult the your application instructions for selecting a Twain source if you do not know how this is done.
 - b. Verify that the file **Twain_32.dll** is in your Windows directory.
4. How do I set up the unit to take the best captures?

Review the steps outlined in Tips for Quality Captures section.

