

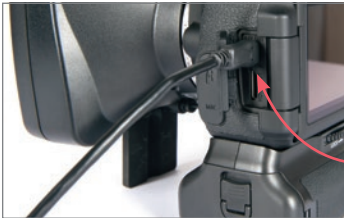
VECTRA^{H1}


QUICK REFERENCE GUIDE

Capturing Images with H1 Tethered to Computer

(VECTRA H1 camera connected to the computer)

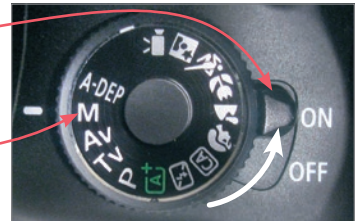
1. START THE VECTRA SYSTEM & SOFTWARE



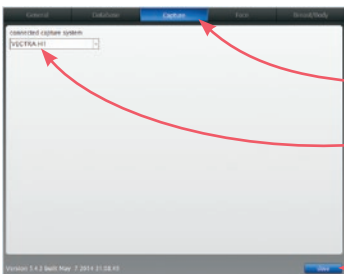
- 1 Turn on the computer.
- 2 Double-click the  VECTRA icon on the Windows desktop to open the software.
- 3 Connect the VECTRA H1 camera to the computer with the supplied USB cable.


4 Rotate the power switch (top of the camera) to **ON**.

5 The mode dial should be set to **M** when the camera is on.








- ✓ The first time you use the VECTRA software, check to make sure H1 is selected as the capture system:





- 1 Click the  **set up** button in the lower right corner of the screen.
- 2 Select the **Capture** tab and make sure **VECTRA H1** is displayed.
- 3 Click **close**.

2. FIND OR CREATE A PATIENT CHART

(see VECTRA H1 User Guide Chapter 2 for more details)


- 1 Click the  **look up patient** button in the upper right corner of the VECTRA home screen.
 - 2 Enter search criteria such as the patient's name, date of birth, and/or ID number.
 - 3 Click  **show matches** (or press the “Enter” key) to display matching records.
 - 4 Click  **new capture**. (If more than one matching record is displayed, first click to select the correct patient, then click  **new capture**.)
- ✓ If the correct chart is not found, click  **new patient** to create a new patient chart.


creating a new VECTRA patient chart

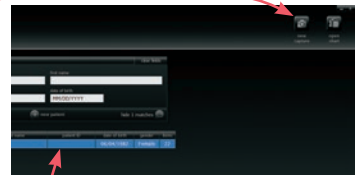
- 1 Click the  **new patient** button in the upper right corner of the VECTRA home screen.
- 2 Enter patient information.
- 3 Click  **new capture**.

new capture button




If the  **new capture** button is not available (upper right corner of the screen), make sure

- the H1 camera is on
- a patient chart has been selected (or opened)
- the USB cable is firmly connected to both the computer and the H1 camera
- VECTRA H1 is selected as the capture system in  **setup** (see previous page).



Turn the H1 camera off, then on.


If  **new capture** is still unavailable, restart the VECTRA software and try again.

3. CAPTURE 3D IMAGES FOR STITCHING

✓ **Consistent patient positioning** is the most important aspect of capturing medical images. Follow consistent methods to ensure consistent patient positioning.

✓ **The patient should remain completely still throughout the 3 image captures.**

before positioning the patient in front of the VECTRA

- Make sure the  tab is selected.
- Remove all jewelry near the area of interest.
- Remove sweat, oils, or anything shiny from the skin.
- Remove all make-up for facial imaging.
- Make sure the patient's hair and clothing is secured away from the face, ears and neck.

for best results

- For facial images, the patient's eyes should be open, gaze fixed straight ahead, not looking up or down, mouth closed, relaxed facial expression.
- For the right and left views of the face, the camera should be angled upward toward the patient's head to optimize chin and neck detail.
- Capture the images in the specified order: right side, front, left side.

Capturing Images with H1 Tethered to Computer



- Center the target area in the left side of the split screen in the LCD. Aim the ranging lights toward the middle of the field of interest at a representative area of focus (i.e., not at the tip of the nose, since it's closer than the rest of the face). The ranging lights converge into a single green dot when the camera is at the correct shooting distance (approximately 14 inches/35cm).
- The flashes should recharge as you move into place for the next capture.

✓ **For follow-up images:** Review the baseline image before initiating image capture, to assist in positioning the patient correctly.

using the H1 camera



1 Turn on the ranging lights by pressing the button on the right of the lens housing (**ON** glows green). *The ranging lights will automatically turn off after 1 minute of inactivity. Press the button again to restart.*

2 When the ranging lights are converged and the target area is centered in the left side of the split screen preview, press the shutter release to capture the image.

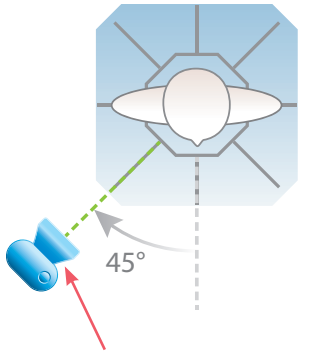


3. Capture 3D Images for Stitching

THE PATIENT SHOULD REMAIN COMPLETELY STILL THROUGHOUT THE 3 IMAGE CAPTURES.

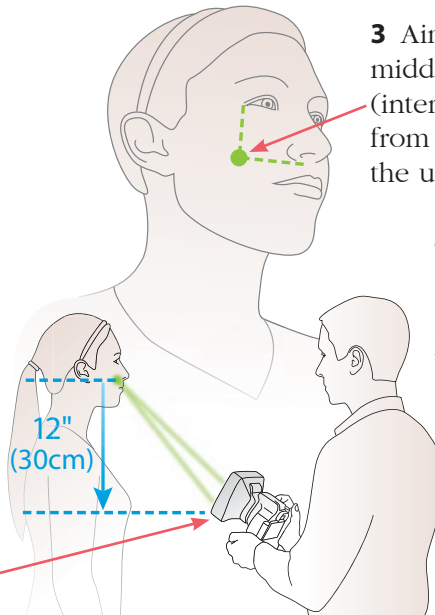
capture 1: RIGHT side

1 Stand at 45 degrees from the direction the patient is facing (photographer moves left of patient).



Position camera at a 45° angle from the front toward the RIGHT side of the face.

2 Hold the camera level with the patient's chest (about 12 inches below the middle of the patient's face).



Camera at patient's chest level, about 12 inches (30cm) below mid-face, and angled upward.

3 Aim the green dots at the middle of the patient's cheek (intersection of imaginary lines from the lateral canthus and the upper lip).

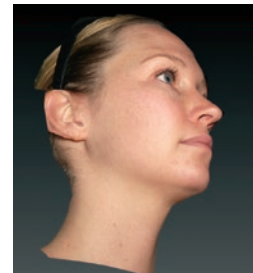
4 Converge the green dots to a single point by adjusting camera distance from the patient.

5 Capture image.

ranging lights at mid face



live preview during right view capture



captured 3D image

THE PATIENT SHOULD REMAIN COMPLETELY STILL THROUGHOUT THE 3 IMAGE CAPTURES.

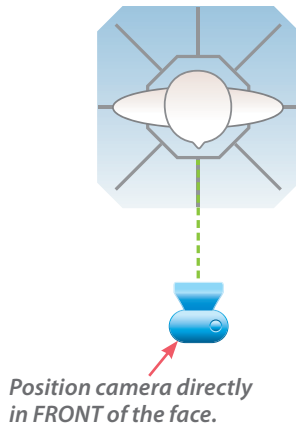
capture 2: FRONT 1 Stand directly in front of the patient.

2 Hold the camera level with the patient's nose.

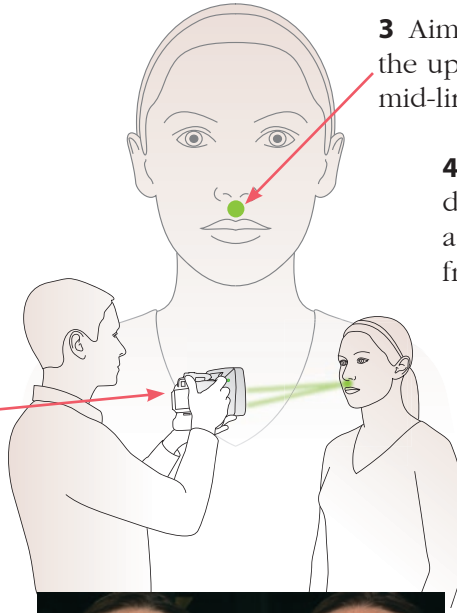
3 Aim the green dots between the upper lip and nose, at the mid-line of the patient's face.

4 Converge the green dots to a single point by adjusting camera distance from the patient.

5 Capture image.



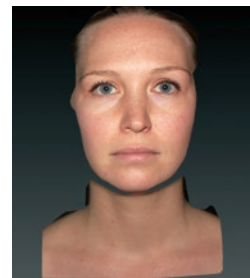
Camera level with patient's nose.



ranging lights at center of upper lip, just below nose



live preview during front view capture



captured 3D image

3. Capture 3D Images for Stitching

THE PATIENT SHOULD REMAIN COMPLETELY STILL THROUGHOUT THE 3 IMAGE CAPTURES.

capture 3: LEFT side

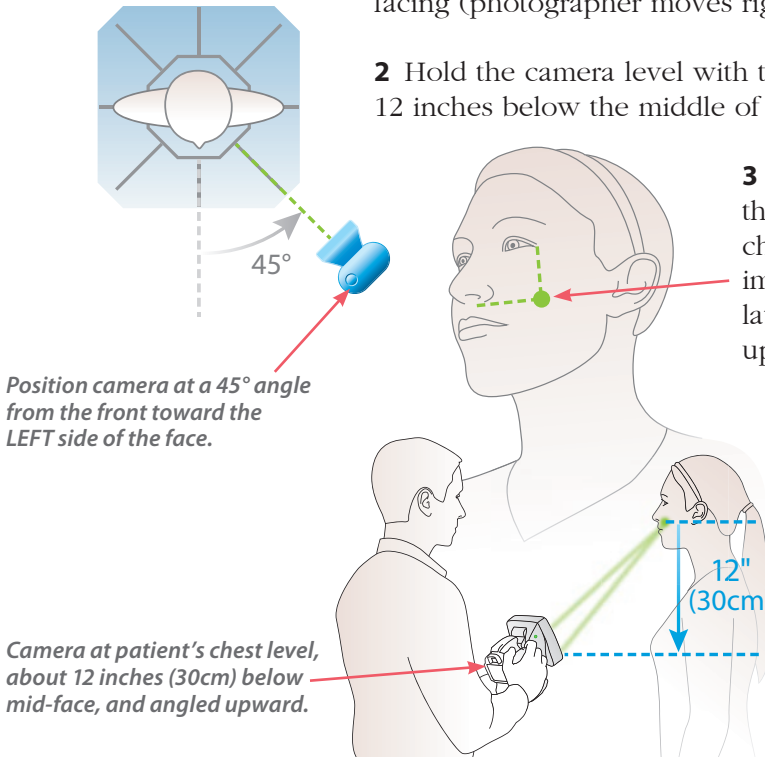
1 Stand at 45 degrees from the direction the patient is facing (photographer moves right of patient).

2 Hold the camera level with the patient's chest (about 12 inches below the middle of the patient's face).

3 Aim the green dots at the middle of the patient's cheek (intersection of imaginary lines from the lateral canthus and the upper lip).

4 Converge the green dots to a single point by adjusting camera distance from the patient.

5 Capture image.



Position camera at a 45° angle from the front toward the LEFT side of the face.

Camera at patient's chest level, about 12 inches (30cm) below mid-face, and angled upward.

ranging lights at mid face




live preview during left view capture



captured 3D image

4. STITCHING

After the third image is captured, VECTRA software automatically processes the images and stitches them together into a single 3D image. The individual captures are displayed while they are being processed.

- ✓ If you wish to interrupt the processing and retake the images (if, for example, the subject blinked or was in the wrong position) click  **discard & retake**.





The completed image is displayed in Face Sculptor.



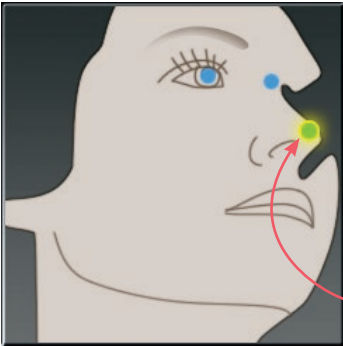
if auto-stitch fails If VECTRA software is unable to locate the required facial features, it will display an error message over the captured images.



First check to see whether all three images were taken in the specified order: right, front, left. If not, click  **discard & retake** and capture the images in the correct order.

If the order is correct, check to see whether the poses are correct, eyes are open and mouth is closed for all three images. If not, click  **discard & retake** and recapture the images.



If images appear to be properly captured, click **OK** in the error message to manually identify the landmarks.




1 The location for the first landmark is displayed in the icon below the first image. Position the tip of the cursor arrow over the appropriate anatomical location in the first image as shown, and click once to place the landmark. As each location is clicked, the icon updates to highlight the next landmark to be placed. Each of the 3 captures requires its own set of landmarks.

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2 Repeat until each of the requested landmarks has been placed. If you wish to change the position of a landmark, position the tip of the cursor arrow over it. The cursor changes to an  open hand when it's close enough to the landmark. Click and drag (the cursor changes to a  grabbing hand). Release the mouse button when the landmark is in the correct position.

3 When you are satisfied with the manual landmarks, click  **retry stitch**. VECTRA software completes the automatic stitching process and displays the completed image in Face Sculptor.

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