

QUICK REFERENCE

SETTING PROCESSING LIMITS

Clinical Importance

The **Setup** screen in 4DM is the starting point for the quantitative processing of cardiac studies. The program relies on these initial estimates to locate the surfaces of the heart. It is important that the operator ensure that the initial LV limits are correct.

**Corridor4DM Version:**  
6.0 and 6.1



**Target Audience:**  
Technologists

**Primary Workstation:**  
Processing

**Note:** 4DM software will automatically determine the LV center and the axial limits of the LV. Users should only adjust the limits if they are visually unacceptable.



**Note:** If users adjust the apical limit 4DM will only use it as a general placement and search forward and backward 1-2 slices for the most accurate apical limit placement.



Apical limits are not used by 4DM to calculate TID or ED/ES Volumes.

**Tip:** Use the **tilt/reorient** feature when SA data brought into 4DM is not rotated to meet physician's interpretation guidelines.



For more assistance using 4DM colorbar controls, see Chapter 2: 4DM Screens and Controls in the Corridor4DM User's Guide.

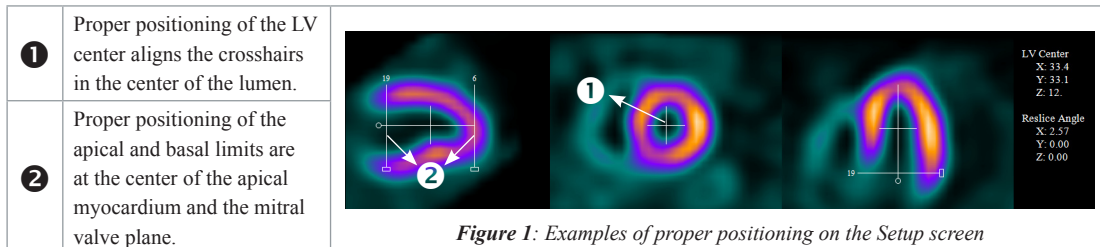


Figure 1: Examples of proper positioning on the Setup screen

**If adjustments are necessary on the Setup screen, follow these steps:**

- Launch 4DM with desired patient. On the **Setup** screen, **visually assess** the LV center, apical and basal limits, and orientation (tilt) for accuracy.
- To **reposition LV center** (see **1** in Figure 1) left-click and drag the crosshairs on the SA image to the desired location.
- To **reposition the apical and basal limits**, left-click and drag the vertical sliders (see **2** in Figure 1). Ideal location for the apical limit is 1-2 pixels deep into the myocardium. Ideal location for the basal limit is where the intensity drops to <50% of the mid-ventricular intensity. To better distinguish the color intensity within the VLA or HLA when positioning the vertical sliders, change the colorbar. For example, the color scheme Step10 as seen in Figure 2.
- To **tilt (reorient) VLA and HLA images**, click and drag the circular rotation handle. This tool allows users to rotate images within the program rather than exit and have to re-generate the reconstructions. The apex of the heart should be pointing towards three o'clock on the VLA image and towards 12 o'clock on the HLA image. See Figure 3 for another example of proper positioning.
- Click **Process** (at top of Setup screen) to apply 4DM algorithms using your new specified orientation and limits. The program will automatically proceed to the **Surf QA** screen to check LV surface estimates.

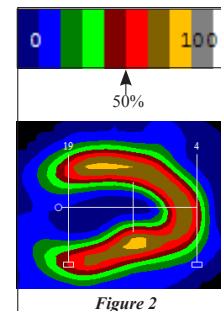


Figure 2

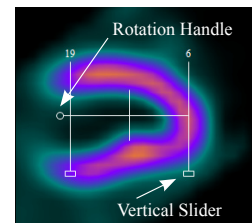


Figure 3: Proper apical/basal limit, LV center, and orientation placements.

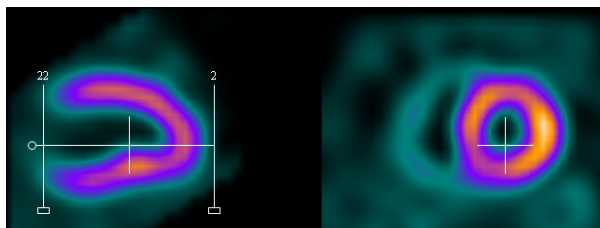


Figure 4: Shows an example of IMPROPER apical and basal limit positioning on the VLA slice, and IMPROPER LV center alignment on the Mid SA Slice.

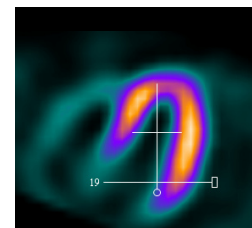


Figure 5: Shows IMPROPER image orientation on the HLA slice.