

Quick Guide QLAB 10 – Mitral Valve Navigation (MVN<sup>AL</sup>)



The **MVN**<sup>A,I</sup>. **Tasks** tab contains guided steps for the user to obtain valve measurements on x7-2t 3D data sets (ECG required). Completion of steps 1-4 provides essential annular measurements. Completion of optional guidance steps 5-8, provides additional editing options and measurements.

# MVN<sup>A.I.</sup> task guidance steps 1-4:

 ES Frame Confirmation: The end systolic (ES) frame is automatically selected and confirmed. To select a different ES frame: click on 1. ES Frame Confirmation tab, click arrows to preferred frame, and then press Confirm. The selected frame will be flagged (Figure 1).





Note: The box borders and arrows in the figures were added to the images in this quick card. Chroma has been used on some images.

- 2. Image Alignment: The illustration in the lower right quadrant provides visual guidance for alignment of the green, red and blue planes.
  - Rotate the red plane to align the plane with the illustration in the lower right quadrant (Figure 2). Move and tilt the blue line to transect the annular points.
  - Align the green plane to center the red line (Figure 3).
  - The blue plane serves as a reference to confirm that the aorta and LV are aligned like the illustration. Tilt the red line to align.











- Do not adjust the green line placement (Figure 4). Press Next.
- **3. Ref Pt. Selection:** The illustration in the lower right quadrant provides visual guidance for point placement.
  - Place the AL and PM points in the green plane and left click to set.
  - Move the cursor to the red plane, place the A and P reference points and left click.
  - To edit the red Nadir and AO points, place cursor over the point; and then left click and hold to move (Figure 5).
  - Press Next.

Note: The blue progress bar indicates processing progress. Results display in the right panel (Figure 6).

- **4. Annulus Editing:** Check annular point placement by rotating the arrows on the image.
  - If no editing is necessary, press Done.
  - If editing is necessary, left click and hold any annular point in the red or green planes to move the points.



		>>> Results
Tasks Controls	📕 A . 🕞 A . 🖻	MV Summary
A Annulus Falting		Annulus
V 4. Annulus Editing		MV AL-PM Diam 54.8 mm
Edit the Annulus points if peressary		MV AP Diam 44.3 mm
Rotate the annulus using the on-image		MV Ann Height 13.7 mm
controls and edit points in the green or		MV Ann3D Circ 179.8 mm
red plane.		MV Ann2D Circ 167.9 mm
		MV Ann2D Area 2133.9 mm <sup>2</sup>
Done		MV Ann3D Min 2263.3 mm <sup>2</sup>
T		Area
Tools View	P	MV Ann 2D/3D 94.3 % Min A
Clear Ref. P Report Page	a 🔊 🖉	MV Ann 2D/3D 93.4 % Circ
Gain Brightness Magnify		MV Ann Ellipsicity 123.6 %
		■ Leaflet Area
		Leaflet Volume
Slice Thickn	<b>3D</b> 1	■ Leaflet Len./Ang.
< 0 ►		Coaptation
	1 2 3 4 3 6	Aortic-Mitral
Annulus Slice: 1 of 8		= Unspecified
		= Specified



• The blue plane is for reference only. Press Done.

These optional steps provide additional editing options and measurements.

# MVN<sup>A.I.</sup> task guidance steps 5-8.

- Commissure Editing: Left click and hold commissural points to adjust if necessary. Press Next (Figure 7).
- 6. Leaflet Editing: Navigate the image using the arrows on image (Figure 8). Left click leaflet trace points to adjust if necessary. Edit coaptation points, if leaflets fail to demonstrate coaptation. Press Next.





Note: **Recalc Leaflets** clears manual edits unless **Cancel** is selected.

- Border Editing: Right click to specify the leaflet segmentation points (A1, A2, A3, P1, P2, P3). Left click on a green diamond and hold to adjust if necessary (Figure 9). Press Next.
- 8. Papillary Tip Selection: Right click to specify the papillary muscle tips, if visible. Press Done.



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