Ensuring accurate QPS/QGS contours
Yet another exercise in attention to detail

This informal guide is intended to be utilized in conjunction with the protocol "Myocardial Perfusion Study (Cardiolite-Cardiolite Same Day)" This guide is a supplement, not a replacement for a working knowledge of the basics of cardiac processing utilizing the Xeleris system.


You've seen it – where QPS/QGS looks completely bizarre because the computer has, once again, decided that a loop of bowel is part of the myocardium. While this example is rather obvious, some aren't, and that's why you should *always* check the **Slice** tab.
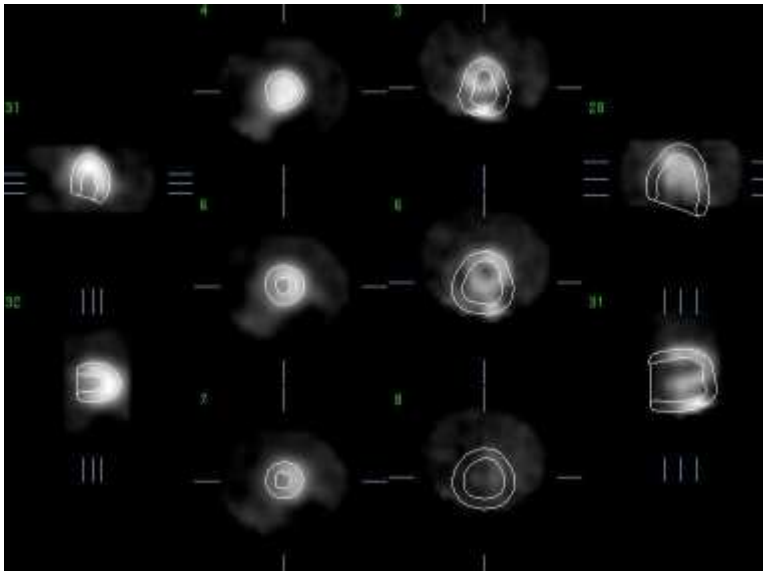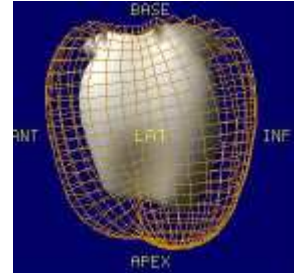

The image to the left shows the **Slice** page when the computer has been fooled by a loop of bowel. This particular example was actually forced to be abnormal for an example, but you can still see how the contours do not follow the myocardium on the images to the right. In order to produce accurate results from QPS and QGS, human intervention is necessary, which is ultimately good in stopping the machine's attempted takeover of the world. Sorry, Ah-nold.

 When you have realized that manual processing is necessary, click the **Manual** button in the top-left corner, and you'll get an image that looks vaguely like the one to the right. Click on **Mask** and **Constrain** (already highlighted in the illustration), and move the limiters so that only the myocardium is within the yellow lines (see below).   The line that bisects the angle of the myocardium should have its top point at the apex of the heart and its last point at the base. The middle point should, of course, be in the middle. Once you have done this, click **Process**.
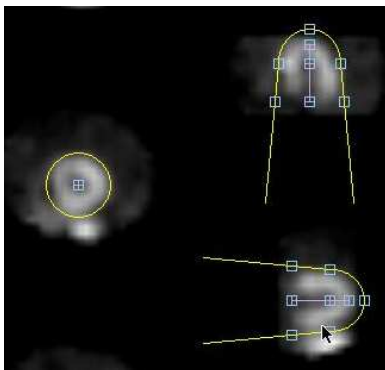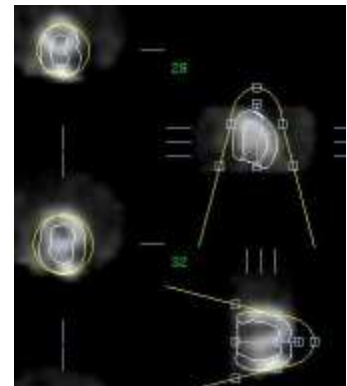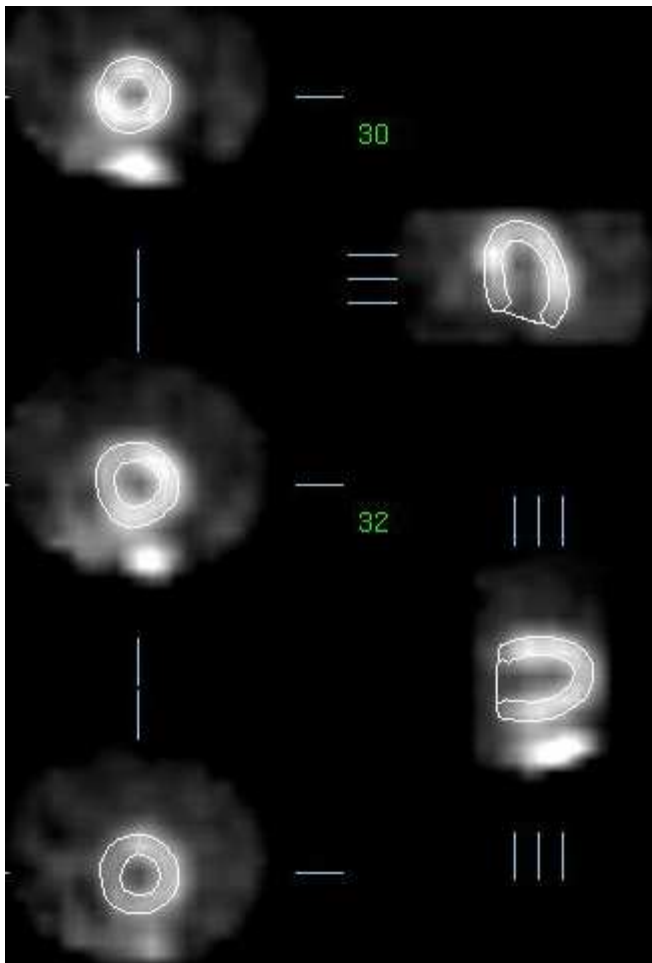
This should leave you with an image of the myocardium, the contour lines nicely following the myocardium. If not, click **Manual** again, and re-attempt it.

Once you have achieved satisfactory results, continue processing the QGS normally.

Important note: When you have to manually process QGS, you will almost certainly have to manually process QPS as well. Be sure to check!

These processing results will be saved with your work, and will be automatically used when the doctor pulls up the QPS/QGS results.

As you did this, you may have noted there were instructions at the bottom of the **Manual** page (reproduced below). You may follow these instructions as well; herein I have simply jumped to step 5. In my experience, if you have to manually process it at all, you will need to utilize the **Mask** and **Constrain** settings to get good results. Feel free to take the extra steps listed if you feel it necessary.

1. Position short axis crosshairs over LV center.
2. Position long axis line end-points over LV apex and base.
3. Position mask outside of LV.
4. Select Localize (limits initial LV search to mask) and then process.
5. If necessary, reprocess with Mask (disregards all counts outside of mask) and/or Constrain (locks LV apex and base).