However, once you modify a label, Igor no longer considers it a contour label and will not automatically update it any more. When the labels are updated, the modified label will be ignored, which may result in two labels on a contour curve.

You may want to take complete, manual control of contour labels. In this case, set the Labels pop-up menu in the Modify Contour Appearance dialog to "no more updates" so that Igor will no longer update them. You can then make any desired changes without fear that Igor will undo them.

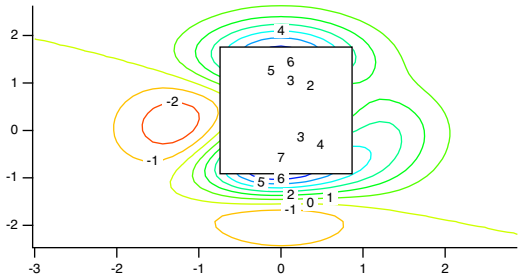
Contour labels are distinguished from other tags by means of the /Q flag. Tag/Q=*contourInstanceName* assigns the tag to the named contour. Igor uses the /Q flag in recreation macros to assign tags to a particular contour plot.

When you edit a contour label with the Modify Annotation dialog, the dialog adds a plain /Q flag (with no =*contourInstanceName* following it) to the Tag command to divorce the annotation from its contour plot.

Add the `/Q=ContourInstanceName` to Tag commands to temporarily assign ownership of the annotation to the contour so that it is deleted when the contour labels are updated.

Contour Labels and Drawing Tools

One problem with Igor's use of annotations as contour labels is that normal drawing layers are below annotations. If you use the drawing tools to create a rectangle in the same location as some contour labels, you will encounter something like the following window.



You can solve this by putting the drawing in the overlay layer. See **Drawing Layers** on page III-68 for details.

Another solution is to remove the offending labels as described under **Repositioning and Removing Contour Labels** on page II-378.

Contouring Pitfalls

You may encounter situations in which the contour plot doesn't look as you expect. This section discusses these pitfalls.

Insufficient Resolution

Contour curves are generally closed curves, or they intersect the data boundary. Under certain conditions, typically when using XYZ triplet data, the contouring algorithm may generate what appears to be an open curve (a line rather than a closed shape). This open curve typically corresponds to a peak ridge or a valley trough in the surface. At times, an open curve may also correspond to a line that intersects a nonobvious boundary.

The line may actually be a very narrow closed curve: zoom in by dragging out a marquee, clicking inside, and choosing "expand" from the pop-up menu.

If it really is a line, increasing the resolution of the data in that region, by adding more X, Y, Z triplets, may result in a closed curve. Selecting a higher interpolation setting using the Modify Contour Appearance dialog may help.