Slots and Squares Measurement

To measure the center of a slot there are four methods

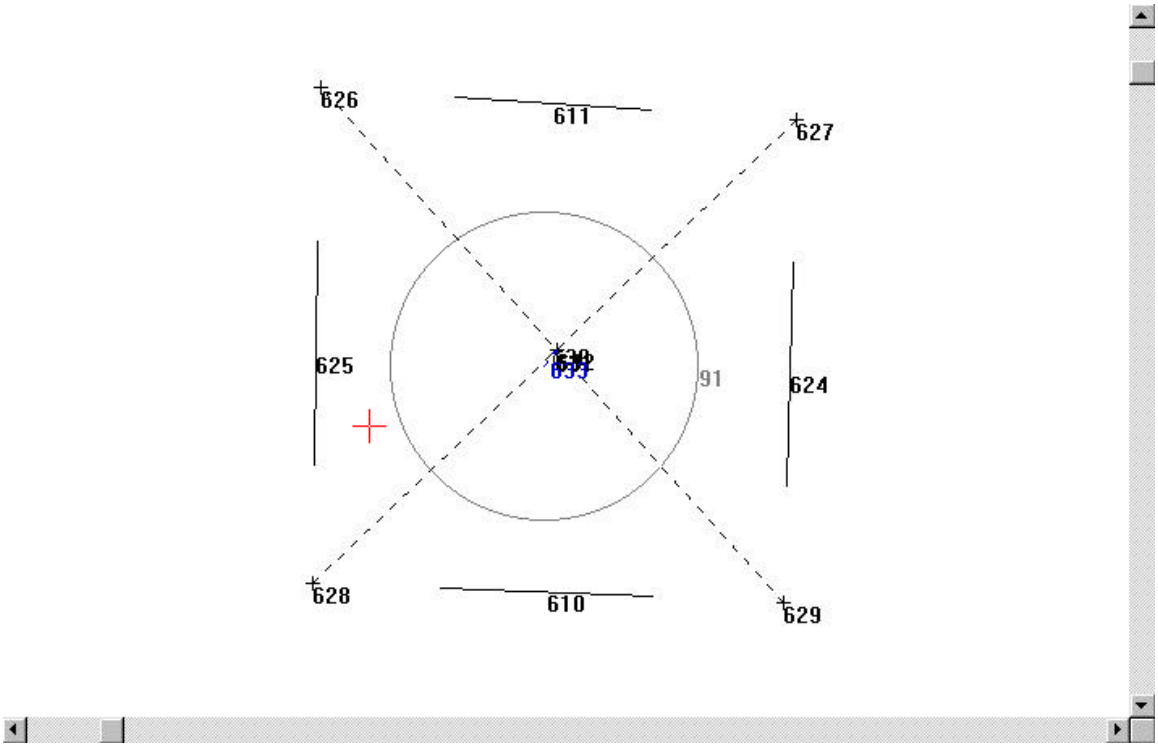
Three point method:

If the slots are for tooling pins, the ends are unimportant. Use a buffer tool to get a short line near the middle of each of the two long sides (where the pin would go). Construct a point on each of the two lines, and construct a third point from the first two points. The third point will be on the centerline of the slot. That's what you need for panel alignment. See the Datum Construction handout.

Intersection Method:

If the ends are important, the center of a rectangle can be found by measuring the 4 lines with buffer or simple tools, then construct the corner intersection points. Those points are used to construct diagonal lines. Finally construct a point at the intersection of the diagonals.

The oval might be done in the same way, but the ends would be measured as arcs.



Bisector Method using parallel lines:

A less popular method, arguably less accurate, would be to construct bisector lines between the "parallel" sides of a rectangle and use their intersection. (This can make really long lines that can cause your part view to re-scale).

Bisector using arc centers:

You can also use the bisector scheme with arcs at the ends of the slot. A midpoint is constructed between the arc centers. This and the bisector line (between the "parallel" sides) are used to construct a slot center point on the bisector at the location where the midpoint between the arc centers is perpendicular to the bisector line**.**