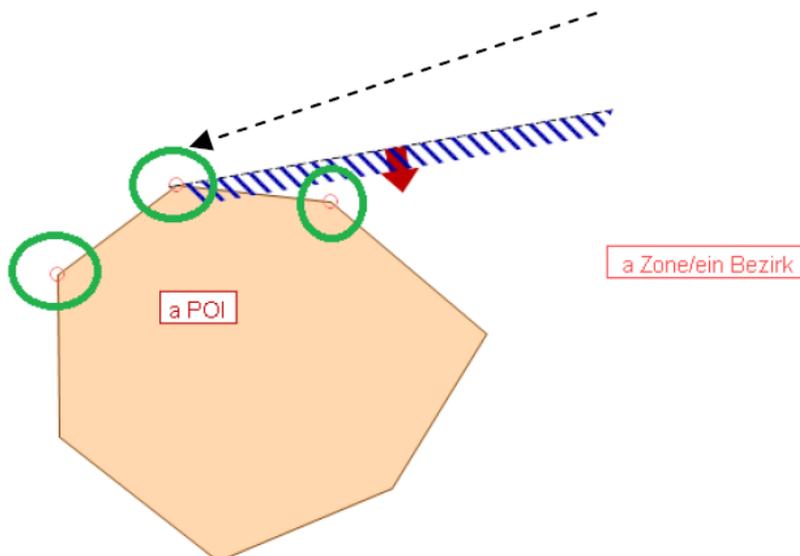


PTV VISUM TIPS & TRICKS:

EDITING A POLYGON OF AREA OBJECTS

PTV Visum uses area objects for zones, territories, POIs, main nodes, main zones and toll systems, and offers a comfortable editor for their closed polygons. Are you sure to know all really helpful features available? Let's get quickly through them.

1. Snap to already available vertices:

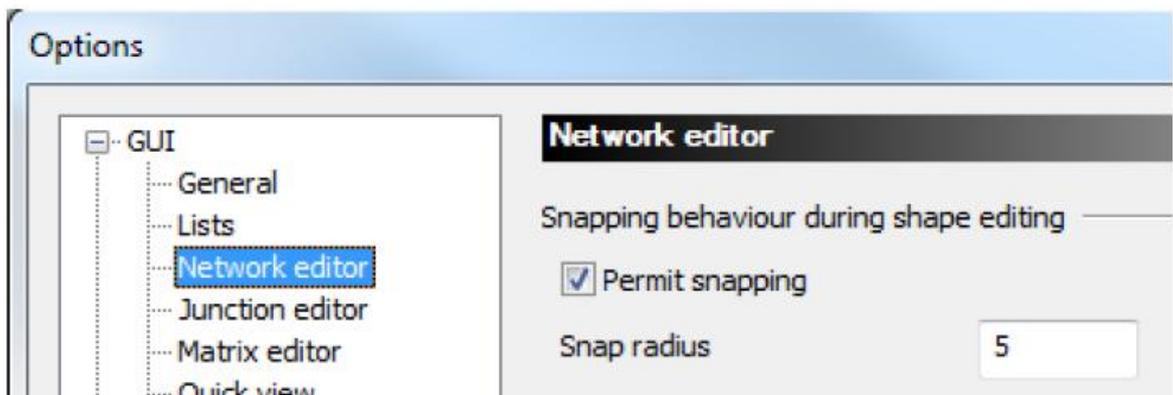


Notes:

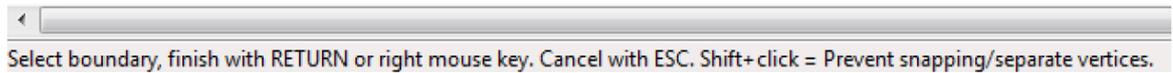
- ▶ The vertices are shown as red circles (in the green ellipses).
- ▶ To draw a (positive) area, digitize in counter-clockwise direction. The direction of the red arrow is always pointing to the inside of the new area.
- ▶ While editing the polygon for a zone, you can use the already existing vertices of a territory or POI.

Make sure to have set the option to:

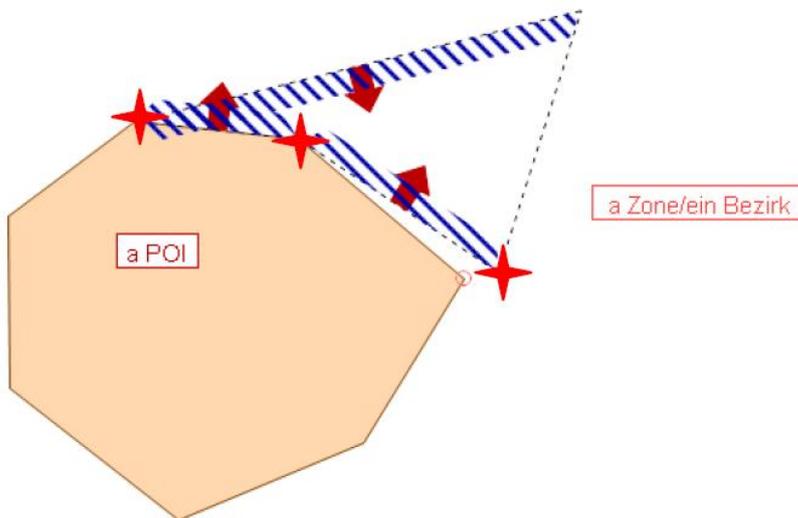
- ▶ „Permit snapping“
- ▶ and a snap radius according to the used coordinate values and network density.



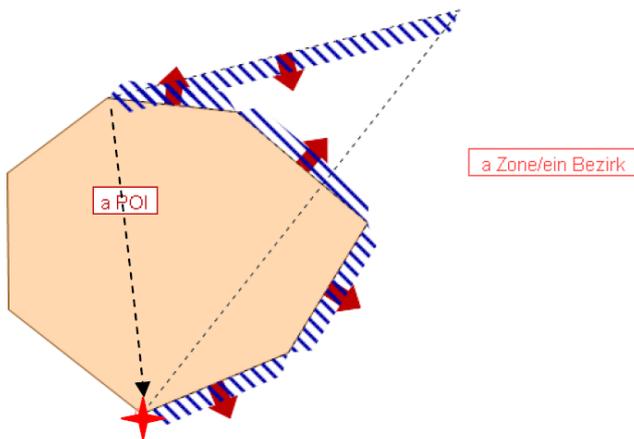
2. Use the hints described in the status bar:



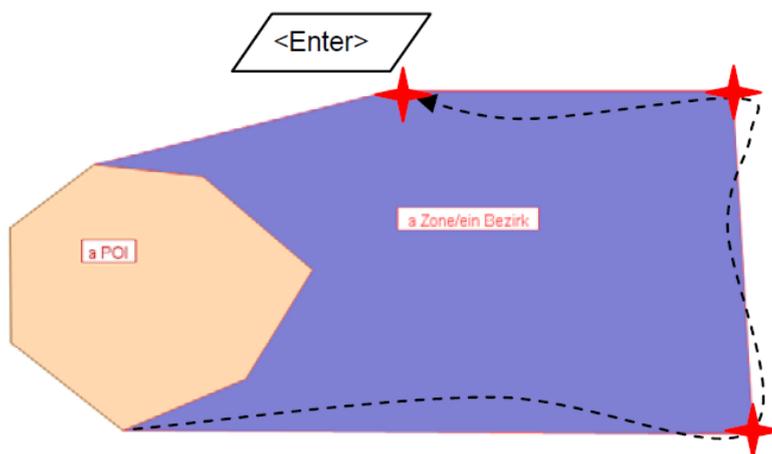
3. If you do not need the snapping function, hold the shift key (* =a mouse click):



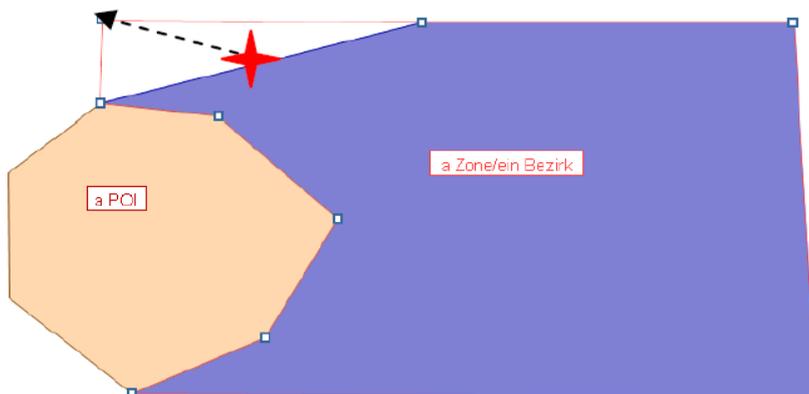
4. If you want to snap a part of an existing polygon, hold the Ctrl key while moving the mouse over the last vertex:

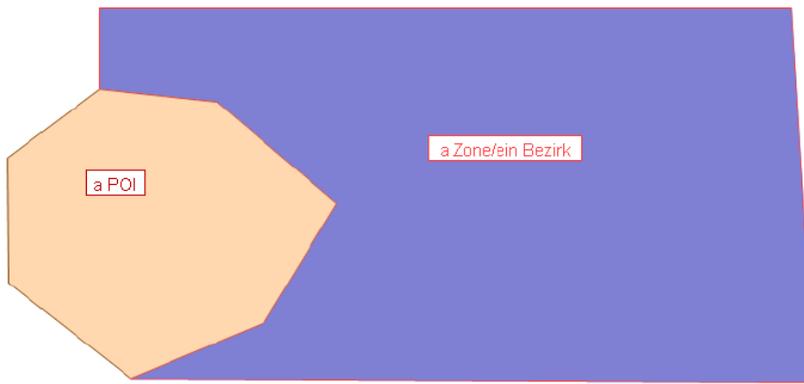


5. After clicking the last vertex, do not return to the first vertex, but hit the Enter key to close the polygon (or right click).



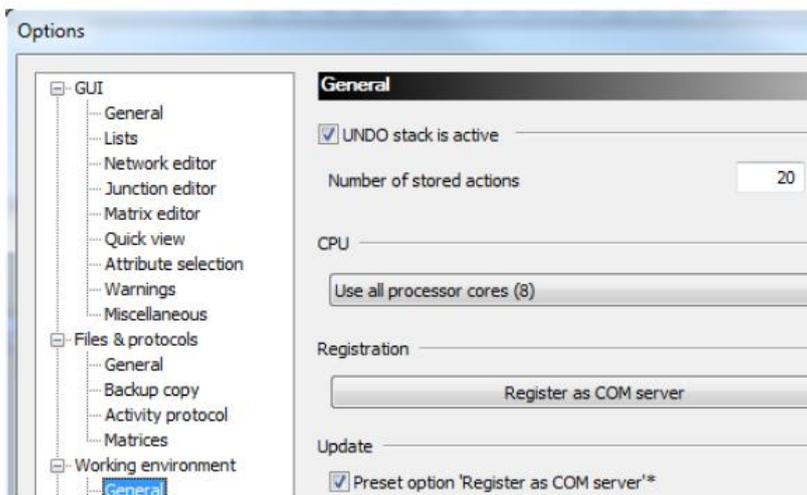
6. Once a closed polygon needs to be changed, right-click the zone, choose "Edit shape" and hold the Ctrl key to click on vertices to remove them. Or hold the Ctrl key and click on the polygon between two vertices to add another vertex.



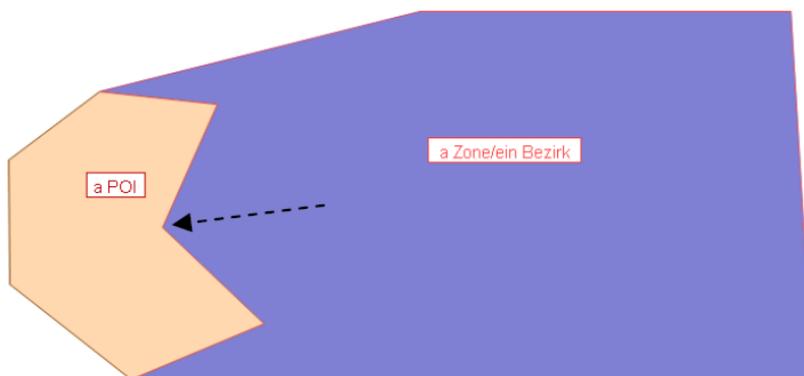


- Move vertices to another position by pressing the left mouse button and move the mouse.

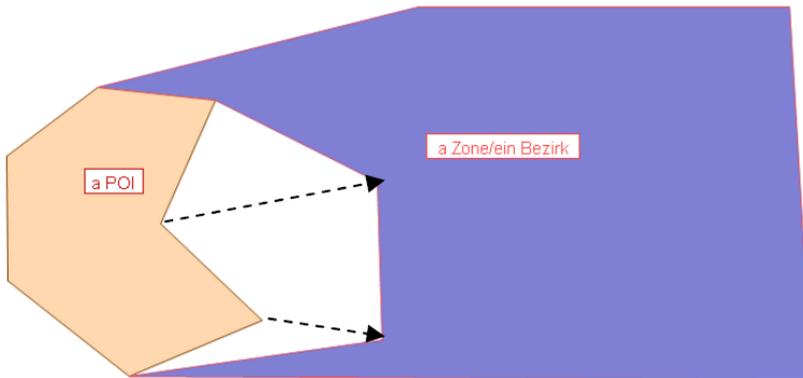
7. Remember, any change can be undone, if the UNDO stack is active:



8. If you want to move a vertex, shared by multiple objects, be aware that all involved objects will be changed:

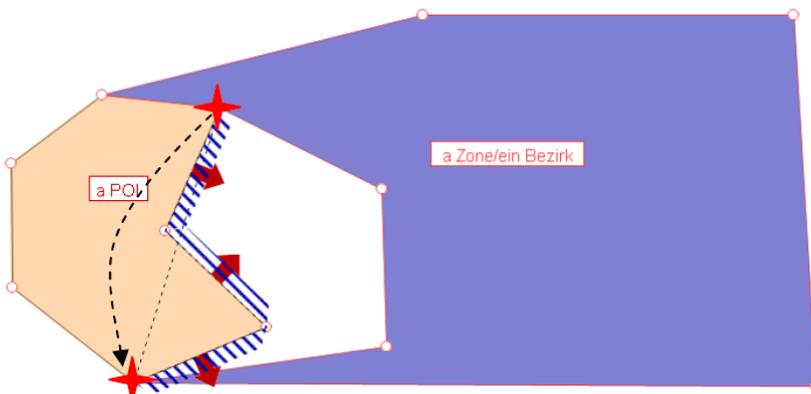


9. If you want to separate shared vertices, hold the Shift key while moving the vertex:

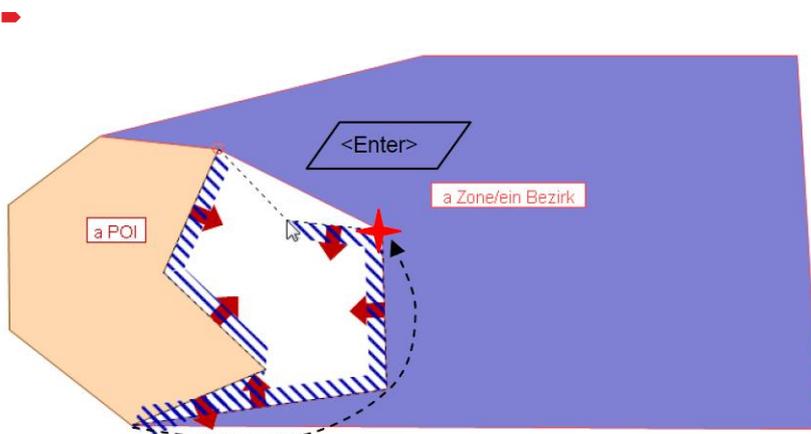


10. If you want to extend an existing area, you can edit the polygon, but you might also add a new face. To try this, start by creating a new polygon:

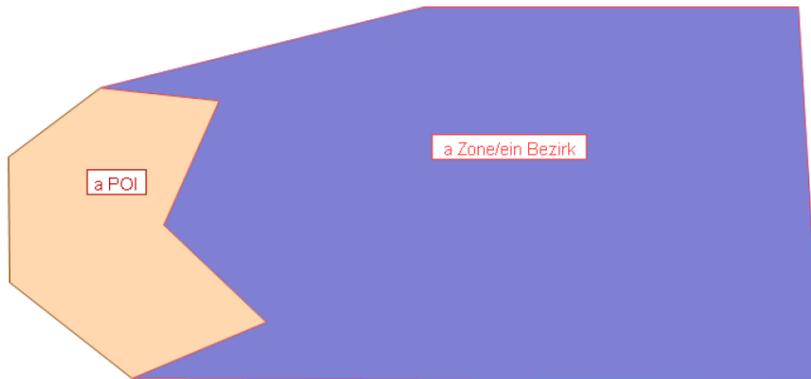
► Hold the Ctrl key while snapping a part of the polygon:



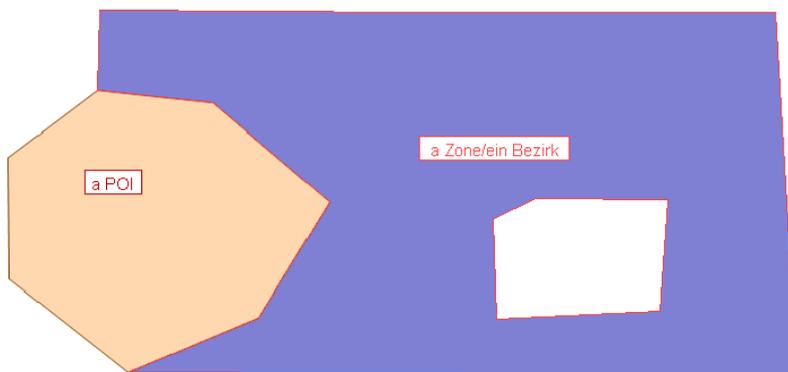
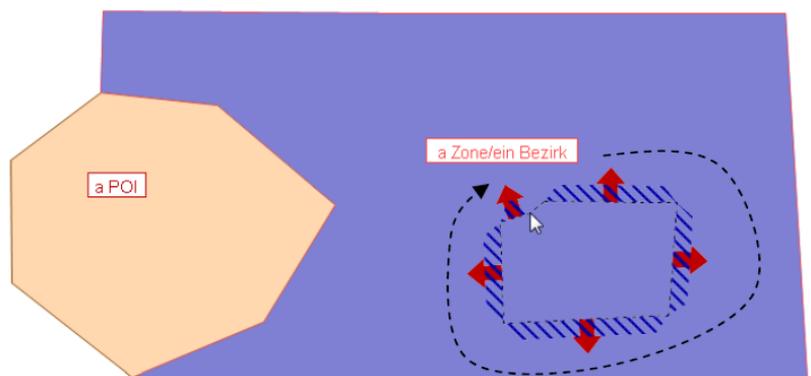
► Hold the Ctrl key while snapping the next part of the polygon. Hit the Enter key (or right click) to close the polygon.



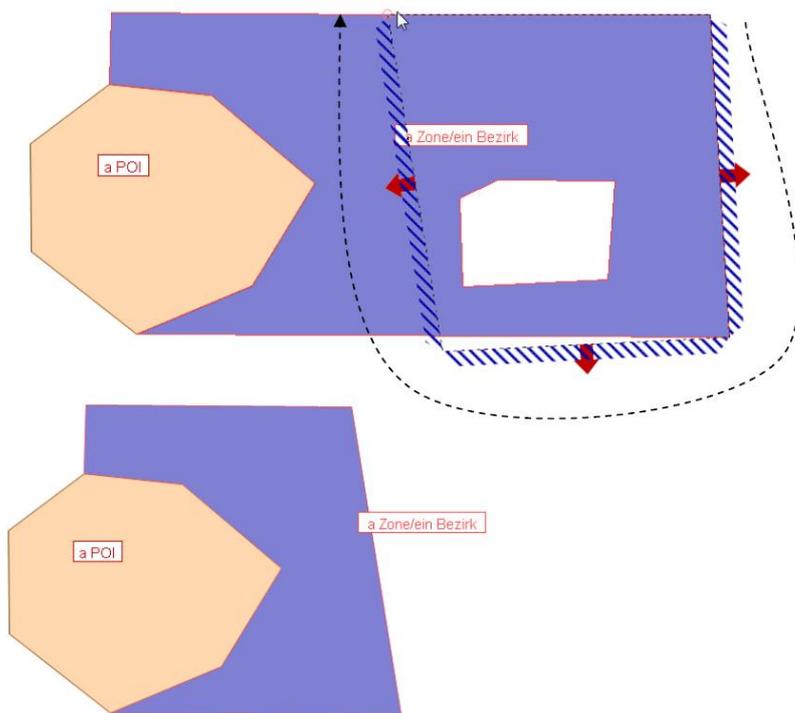
- ▶ The automatic harmonization will remove not needed polygons and vertices:



- 11.** Of course you can reduce the area by adding a “negative” face. Add a hole by drawing its polygon in clockwise direction (note the opposite direction of the red arrows):



Or cut off a piece (and snap existing vertices):



Reference: manual chapter 2.9.