

## Appendix

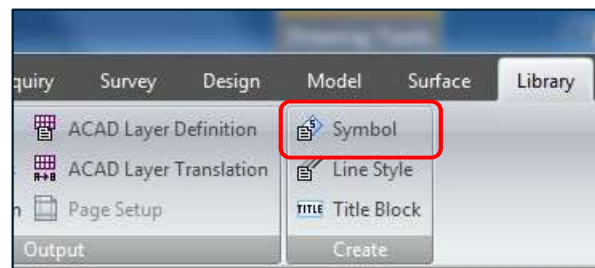
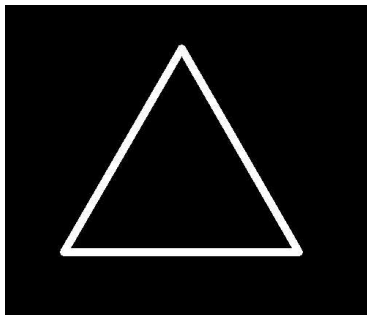
### Creating a NON-SCALABLE Symbol

This exercise outlines how to create a Traverse Station symbol.

1. Open new job
2. We will draw a triangle with the side length 3 units
3. Use the **Insert Line Direction** option to create the following lines

Bearing	Distance
90	3
330	3
210	3

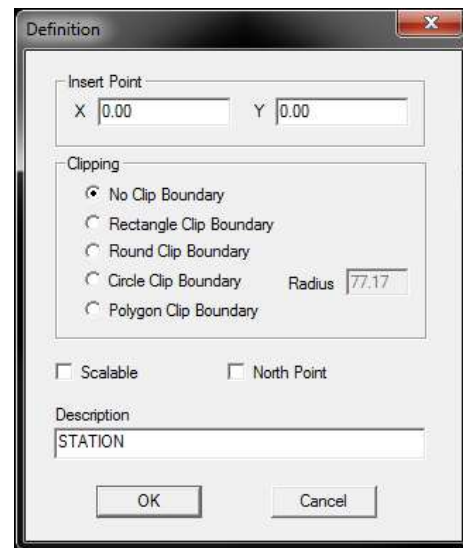
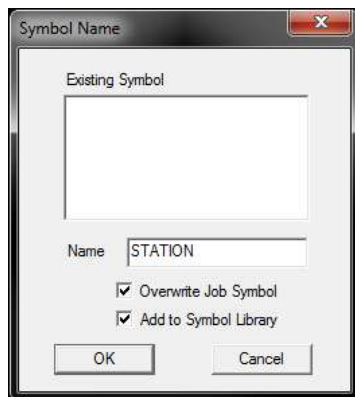
4. Create insertion point using the options **Insert** → **Point** → **Intersection** and make sure the Snap mode is also set to **Snap Midpoint**



The Symbol is now ready to save.

5. Draw a selection box around the items which make up your symbol, this will highlight them yellow. **Library** → **Create Symbol** (shown above right)
6. **Set Insertion Point** will be prompted to define the position that the symbol will be placed in relation to the point. Click on the centre point.
7. In the **Symbol Name** dialogue box, enter a name STATION for the symbol. Tick the box to add symbol to the library.





- Now define the symbol in the **Definition** dialogue box. Fill out using no clip boundary and not scalable.

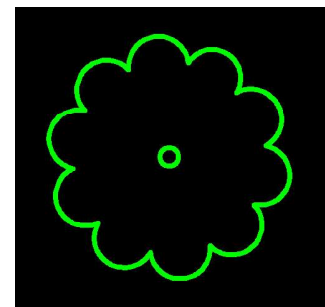
This symbol is now a non-scalable symbol used to represent a traverse station and has been saved into the Symbol Library.

## Creating a SCALABLE Symbol

This exercise outlines the creation of a Tree symbol.

Create the following tree symbol:

- Still in the same job draw one circle with a radius of **0.2** and another with a radius **0.8** using the same centre point.
- Segment the outer circle using the option **Modify** → **Arc** → **Segment Arc** and select outer circle of radius 0.8. MAGNET Office will prompt to locate a reference point on the circle; this is the point from where the segmenting will begin. Select any point on the circle.
- We will segment the circle into **10** equal parts and **Divide by Number** ticked.
- Go to **Edit** → **Select By** → **Arcs**. Tick the **Select Arcs** box and press OK. This will select all the arcs in the job.
- Press delete. This will delete all segmented arcs.
- Create 2-point arcs by using the option **Insert** → **Arc** → **Radius (clockwise)** of radius **0.24735** between all remaining points on outer circle. This should now leave you with the shape shown above. (actual radius is **1.00** – which is very important to get the scaling correct when transferring scaled symbols to ACAD).
- Draw a selection box around the new symbol and go to **Library** → **Create Symbol**
- Set Insertion Point** will be prompted to define the position that the symbol will be placed in relation to the point. Click on the centre point.



9. **Symbol Name** dialogue box will prompt to name the symbol and the option to add to the symbol library.

10. Now fill out the definition for the symbol as shown below:

11. To edit or check definitions of symbol, go to **Library** → **Symbol Editor**, this will take you into the Symbol editor. This dialogue box will enable for the creation of new symbols within the symbol editor, or to edit an existing symbol in the current job or in the symbol library.

