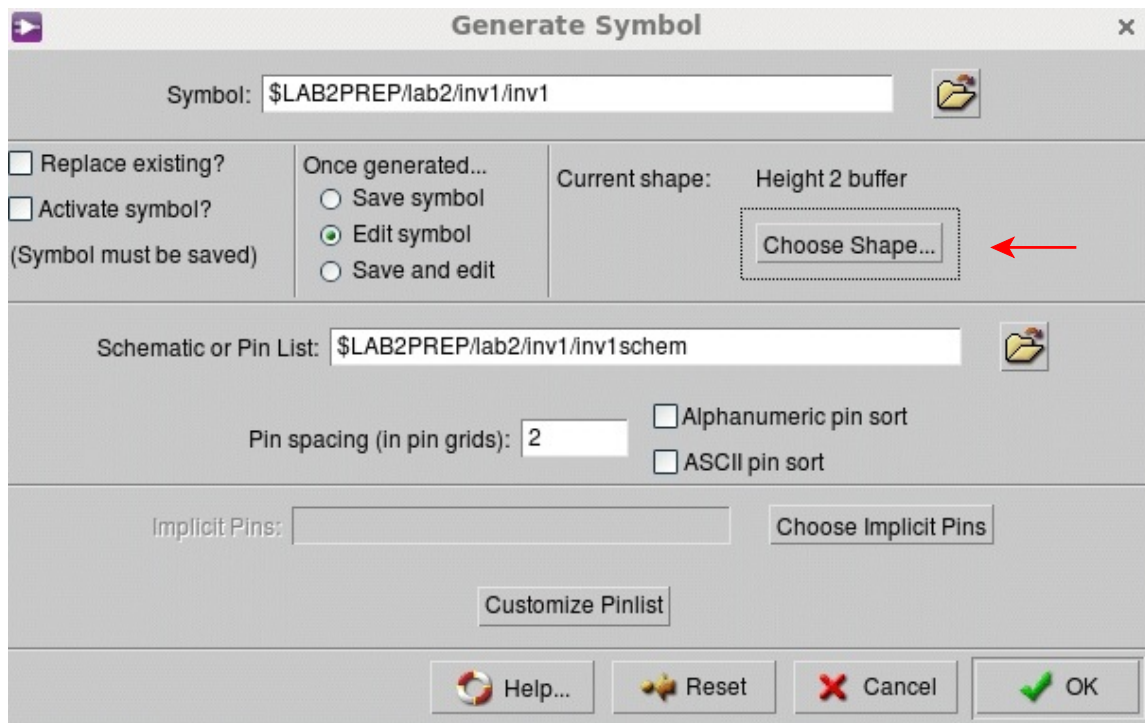


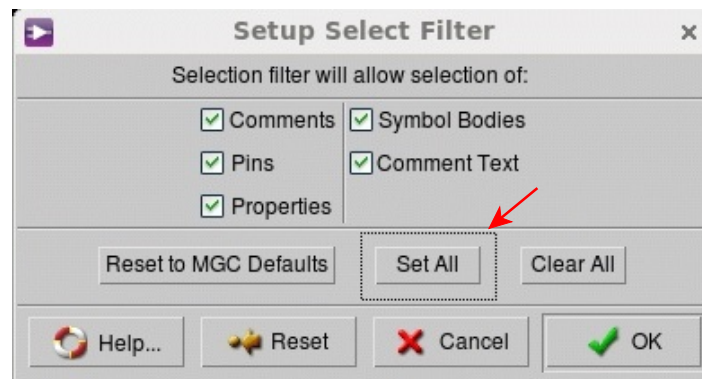
Pyxis - How to create a component symbol  
5/3/18

Creating a symbol for a circuit creates a component, establishes connectivity by defining input and output pins, and allows instances of the component to be placed in another circuit design without having to redraw the details within the component.

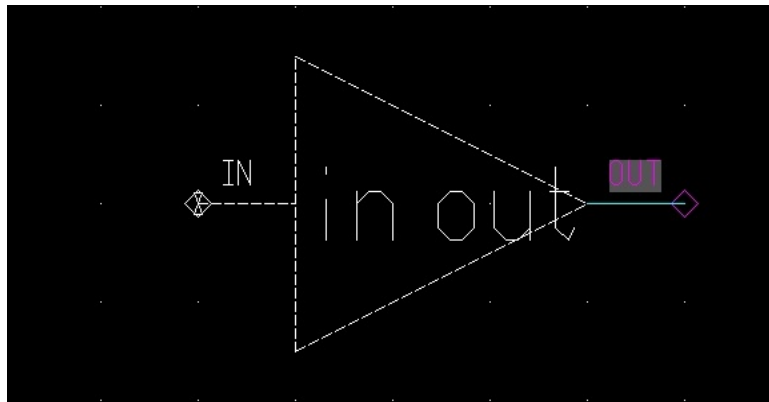
- 0) Before creating a symbol draw the circuit within it using the Pyxis schematic editor. Check and save the schematic.
- 1) With the schematic of the circuit open, from the top tool bar select **Add > Generate Symbol**. Click on the Choose Shape button and select the best shape for the symbol. (an inverter is being defined in this example, so the buffer shape is the closest)



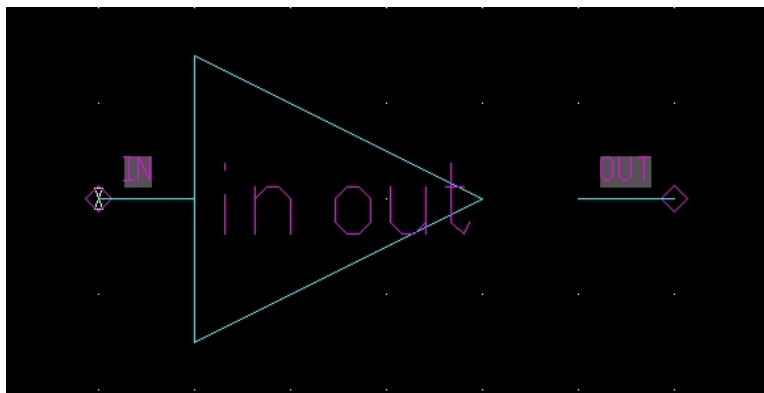
- 2) Click OK and the symbol shape chosen will be displayed.
- 3) To create an inverter symbol a “bubble” needs to be added. On the top tool bar select **Setup > Selection Filter**. Click **Set All** to configure the select filter to select everything. Click ok.



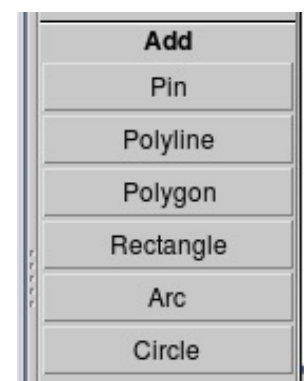
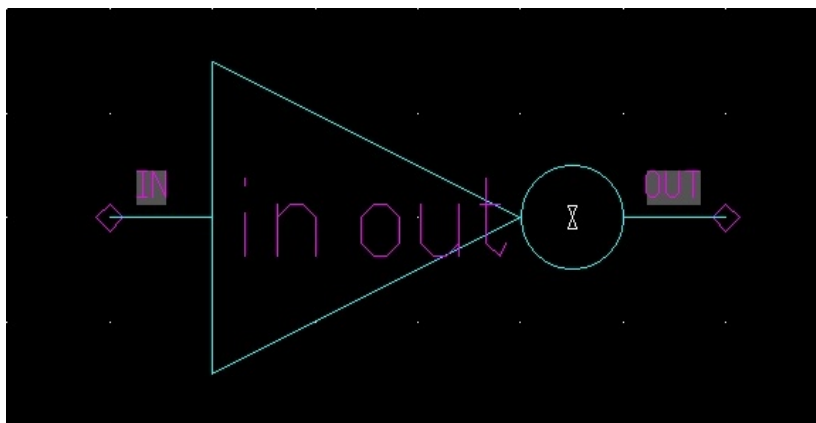
- 4) On the symbol, select the triangle body and everything to the left of its point.



- 5) Press the m key for move and move the selected items left one grid length (the dots that make up the grid are not showing in these images).



- 6) From the Add palette on the right select Circle and install the “bubble”.



While not needed for the inverter, in general you can move labels around or add comment text to make the symbol readable or convey additional information. When done editing, select Check and Save from the palette on the right. The first time it may give a warning about items not on the interface. Check a second time and that warning should be gone. Any other issue causing a warning needs to be fixed. Close the symbol edit window.

## 7) Further notes

Each object on the symbol can be moved around. With the select filter set to all you can click on text, a line, pin, etc. and then press letter m and move the object to the desired location (pressing F2 will deselect what ever is selected). In the example above when objects were moved left to the next snap grid it required a large circle for the “bubble” to fill the gap. If a smaller circle were used and left justified on the point of the triangle then a gap remains to the right of the circle. That gap can be filled in with a line segment thereby resulting in a more balanced “bubble” size.

Text size can be changed to fit within a symbol. Click on text to select it and then press shift-F7. The dialog box that opens will allow editing properties of that object which include font size.