


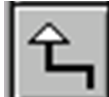













## CSCI-230: UML diagramming using the Dia Diagram Editor

On Linux: Applications >> Graphics >> Dia Diagram Editor

Start by selecting the UML toolset.

Hover over the buttons to see what they mean.

| Use Case Diagrams   |  |
|---|--|
| Component   | Dia Editor Equivalent  |
| System boundary   | Large Package<br>   |
| Actor   | Actor<br>   |
| Use case  | Use Case<br>   |
| Generalization/Specialization between two actors OR two use cases | Generalization<br>  |
| Association between an actor and a use case                       | Association (after inserting shape, double-click on shape in your diagram and change Show arrow to Yes on the desired side)<br> |
| <<extends>> between two use cases                                 | Dependency (after inserting shape, double-click on shape in your diagram and type <<extends>> in the Name field)<br>            |
| <<includes>> between two use cases                                | Dependency (after inserting shape, double-click on shape in your diagram and type <<includes>> in the Name field)<br>           |

| Class Diagrams                                     |  |
|--|--|
| Component  | Dia Editor Equivalent  |
| Class  | <p>Class (after inserting shape, double-click on shape in your diagram, and: (1) change the <i>Class Name</i> in the <i>Class Tab</i>, (2) add class attributes in the <i>Attributes Tab</i> (specify <i>Name</i>, <i>Type</i> and <i>Visibility</i> for each), and (3) add class methods in the <i>Operations Tab</i> (specify <i>Name</i>, <i>Type</i>, <i>Visibility</i> and <i>Parameters</i> for each – PS: each parameter, in turn, will require a <i>Name</i> and <i>Type</i> )</p>  |
| <b>extends</b> between two class or two interfaces | <p>Generalization</p>   |
| <b>implements</b> between a class and an interface | <p>Realizes</p>   |
| Bi-directional association between two classes     | <p>Association (after inserting shape, double-click on shape in your diagram and specify <i>Multiplicity</i>)</p>    |
| Uni-directional association between two classes    | <p>Association (after inserting shape, double-click on shape in your diagram, specify <i>Multiplicity</i> and change <i>Show arrow</i> to <i>Yes</i> on the desired side)</p>   |
| Aggregation between two classes                    | <p>Aggregation(after inserting shape, double-click on shape in your diagram and select <i>Direction</i> to show diamond next to whole-side. Also, if desired, change <i>Show arrow</i> to <i>Yes</i> on the part-side )</p>   |
| Composition between two classes                    | <p>Aggregation(after inserting shape, double-click on shape in your diagram, change <i>Type</i> to composition, and select <i>Direction</i> to show diamond next to whole-side. Also, if desired, change <i>Show arrow</i> to <i>Yes</i> on the part-side )</p>   |
| Dependency between two classes                     | <p>Dependency</p>   |