



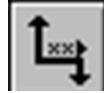













CSCI-230: UML diagramming using the Dia Diagram Editor



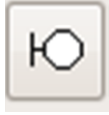
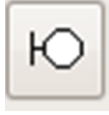


On Linux: Applications >> Graphics >> Dia Diagram Editor

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 
Actor	Actor 
Use case	Use Case 
Generalization/Specialization between two actors OR two use cases	Generalization 
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) 
<<extends>> between two use cases	Dependency (after inserting shape, double-click on shape in your diagram and type <<extends>> in the Name field) 
<<includes>> between two use cases	Dependency (after inserting shape, double-click on shape in your diagram and type <<includes>> in the Name field) 
Notes	Note 

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> 
extends between two class or two interfaces	<p>Generalization</p> 
implements 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 Yes 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 Yes 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 Yes on the part-side)</p> 
Dependency between two classes	<p>Dependency</p> 

Communication Diagrams	
Component	Dia Editor Equivalent
Actor	Actor 
Controller	Class stereotype icon 
Boundary	Class stereotype icon (after inserting shape, double-click on shape in your diagram and change Stereotype to Boundary) 
Entity	Class stereotype icon (after inserting shape, double-click on shape in your diagram and change Stereotype to Entity) 
Communication	Association (use to connect the communicating objects)  Message (insert one for each exchanged message. After inserting shape, double-click on shape in your diagram and specify Message (most of the time, message is a numbered method call such as : 1.2.3 calculateTax(12345)) 
Notes	Note 